

# Rock Products and BUILDING MATERIALS

INCORPORATING DEALERS BUILDING MATERIAL RECORD

Volume XIV.

CHICAGO, ILL., MAY 22, 1914.

Number 2.

## CAROLINA PORTLAND CEMENT COMPANY

We are the largest distributors of Portland Cement, Lime Plaster, Fire-brick and General Building Material in the Southern States, and have stocks of Standard Brands at all of the Atlantic and Gulf Seaports, and at our interior mills and warehouses, for prompt and economical distribution to all Southern territory. Write for our delivered prices anywhere. Also Southern agents for the "Dehydratine's" waterproofing material, "Universal," "Acme" and "Electroid" Brands Ready Roofing. Get our prices.

Charleston, S. C. Birmingham, Ala. Atlanta, Ga. New Orleans, La

**DEXTER** Portland Cement  
THE NEW STANDARD

Sole Agents **SAMUEL H. FRENCH & CO.** Philadelphia



## Phoenix Portland Cement UNEXCELLED FOR ALL USES.

Manufactured by

**PHOENIX PORTLAND CEMENT CO.**

NAZARETH, PA.

Sole Selling Agent, **WILLIAM C. HARTRANFT CEMENT CO.**  
Real Estate Trust Building, PHILADELPHIA, PENNSYLVANIA.

## NEGLEY PATENTED EXCAVATORS

PERFORM ALL SLACK CABLE-WAY OPERATIONS

Infringement Suits Pending. Note Our Ad. in First Issue of Next Month.

### Indianapolis Cable Excavator Company

Beauty Avenue and New York Street INDIANAPOLIS, INDIANA  
CHAS. T. TOPPING & CO., Bessemer Bldg., Pittsburgh, Pa.  
Agents for Western Pennsylvania and West Virginia.  
LELAND EQUIPMENT COMPANY, 126-128 Pine Street, San Francisco, California  
Agents for Arizona, California and Nevada

**FIRE BRICK** "MOUNT SAVAGE." None Better.  
**FLUE LININGS** of FIRE CLAY  
**IRE PROOFING** THERMIC FIRE CLAY  
HOLLOW TILE for both partition and outside use.

## Union Mining Company

GENERAL OFFICES

1113-1117 Fidelity Building, BALTIMORE, MD.

Manufacturing Plants: Mount Savage, MD.



We are preparing a new mailing list for the purpose of giving only those interested the results of tests and experiments which are constantly being carried on by us showing the

**DURABILITY — STRENGTH — SUPERIORITY of**  
**"AMERICAN KEENE CEMENT"**

as compared with other cements and plastering materials.

If YOU are interested send us your name and correct address.

**AMERICAN KEENE CEMENT COMPANY**  
SIGURD, UTAH



**I am the Chibeco Belt Boy**

HERE ARE THREE OF THE BRANDS I REPRESENT:

**RELIANCE** Standard Belt of U. S. for 25 years.  
Guaranteed.  
**SEA LION** Waterproof. For damp or wet places.  
Guaranteed.  
**WHITE STRIP** Patent Composite Leather Belt.  
Guaranteed.  
Chicago Belting Co., 116 N. Green St., Chicago

## SPECIAL FEATURES IN THIS NUMBER

Cement Manufacturers Hold Spring Meeting	Page 22
Largest Gypsum Plant in the World	" 25
Chicago Crusaders Invade the Sunny South	" 40
Contractors' Bonds as a Substitute for Materialmen's Liens	" 41
Eastern Pennsylvania Dealers After Reforms	" 42



**"HERCULES"**

For underground masonry, cisterns, reservoirs, pits, coal and grain pockets.

Watertight, sanitary, hard and dustless floors.

Used with sand and cement to produce a waterproof mortar which will bond perfectly to new or old masonry and permanently waterproof, even if plastered on the inside of a cellar, where the water pressure is outside.

Hercules Colored Coatings; Plaster-bond and Damp-proofing Mastic.

**WATERPROOFING**  
**HERCULES WATERPROOF CEMENT CO.**  
**BUFFALO, NEW YORK**

**VULCANITE**  
**PORTLAND**  
**CEMENT**



*The Brand With a Reputation*

ESTABLISHED 1893

Capacity (actual) 2,000,000 Bbls. the Year

**FREE ON APPLICATION**

FOLLOWING BOOKS:

How to Select and Proportion Aggregates.  
 Cement Sidewalk Paving.  
 Concrete Highways.  
 Concrete on Live Stock Farms.  
 Concrete Fence Posts.  
 Concrete Tanks.

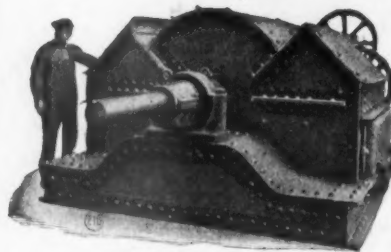
APPLY TO NEAREST DEALER FOR PRICES

**Vulcanite Portland Cement Co.**

Broad Street, PHILADELPHIA

Madison Square, NEW YORK

**"PENNSYLVANIA"**  
**HAMMER CRUSHERS**



For Pulverizing Limestone, Lime, Cement Rock, Marl, Shale, Etc.

Main Frame of steel, "Ball and Socket" Self aligning Bearings; forged Steel Shaft; Steel Wear Liners; Cage adjustable by hand wheel while Crusher is running. No other hammer Crusher has such a big Safety Factor.

**PENNSYLVANIA CRUSHER CO.**  
 Philadelphia  
 New York Pittsburgh

**Concrete's the Thing**  
**Lehigh's the Cement**



Quality  
 Quick Delivery  
 Co-operation

**Lehigh Portland Cement Co.**

OVER 12,000,000 BARRELS YEARLY

Allentown, Pa.

Chicago, Ill.

THIRTY YEARS OF EXPERIENCE IS  
 BEHIND EVERY BARREL OF  
*The Old Reliable*

**Giant Portland Cement**

A RECORD IN LONG TIME TESTS, UNEQUALLED BY OTHER BRANDS OR LARGER OUTPUTS.

Let us show you.

**Giant Portland Cement Co.**

6th Floor Pennsylvania Building  
 Philadelphia



**Canada Cement for Canadian Contracts**

Prompt deliveries anywhere in the Dominion

Write or wire nearest Sales Office for quotations

**Canada Cement Company, Limited**  
 Montreal Toronto Winnipeg Calgary

Mills: Montreal Hull Belleville Lakefield Port Colborne  
 Shallow Lake Marlbank Winnipeg Calgary Exshaw

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS









## Highway Engineer Reduced His Hauling Costs

In the Engineering Record for Dec. 6th there is a very interesting article on "Highway Improvements in North Alabama," by P. S. Fitzgerald, highway engineer for Lawrence County, Alabama. We will repeat what Mr. Fitzgerald says about his hauling outfit:

"The haul here is in most cases short; 2 miles is the maximum. The Rumley "Oil Pull" tractor and

## TROY

### REVERSIBLE WAGONS

on long hauls reduced the cost of hauling to about 10 cents per yard-mile compared with 25 to 35 cents per yard-mile with teams; although where three teams at \$3.00 per day will haul all the stone crushed there is no economy in the tractor and reversibles. It costs little, however, to keep the hauling outfit in readiness, and its moral effect on the price of hired teams is very marked; for here, as everywhere, team owners charge "all the traffic will bear"—and generally strike for higher pay whenever the necessity for using them seems greatest.

The tractor used is small, pulling four 3-yard wagons and frequently has made 100 yard-miles daily at an expense of less than \$10.00 besides spreading and leveling the crushed stone with an ordinary road machine or grader attached to the rear of the train. Good teams haul 1½ cu. yds. per load and if watched make ten to twelve round trips daily on a one-mile haul. The limit of a good day's work at macadamizing is the performance of the slowest machine from crushing to rolling. Thus far the county has found one mile in average weather a good month's work for one plant."

If you have any kind of a hauling job now, or think you may have some day, you ought to have our *Hauling Book PR*. It tells why and how more than 250 different Troy Trains of Reversibles (a few of which are illustrated here) have each more than cut their owner's hauling costs in half. It discusses fully and frankly the hauling question. We'll be glad to send it to you.

## The Troy Wagon Works Co.

101 EAST RACE ST., TROY, OHIO

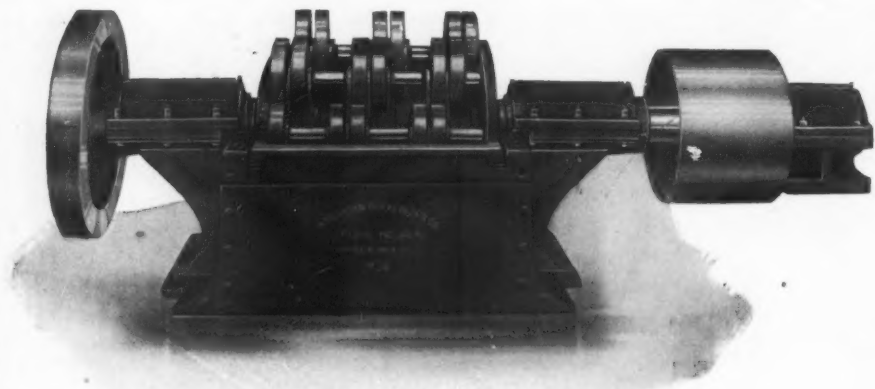
### DISTRIBUTORS:

G. C. Hodges, Brooklyn  
Standard Supply & Equip. Co., Philadelphia  
Henry H. Meyer Co., Baltimore  
H. H. Hoover & Co., Pittsburgh  
W. S. Brown & Sons, Birmingham  
A. Baldwin & Co., New Orleans

So. Texas Implement Co. Houston  
W. M. Pattison Supply Co., Cleveland  
Hodson-Feernaughty Co., Portland  
E. R. Bacon & Co., San Francisco  
W. L. Cleveland & Co., Los Angeles  
Landes & Co., Salt Lake City

Western Metal Mfg. Co., El Paso  
N. J. Dinnen & Co. Winnipeg  
Canadian Equipment & Supply Co., Calgary  
C. Paquet & Co., Quebec  
W. McNally & Co., Montreal

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



## OUR SIX SIZES OF American Ring Pulverizers

challenge comparison in

## Crushing and Pulverizing

Gravelstone, Sandstone, Limestone, 80% Ferro-Manganese, Pyrite Iron Ore, Coke, Brickbats, etc.

### FROM LIKE SIZE TO LIKE FINES

Try one by the side of the other machine—it's the cheapest because it does the best work cheaper.

### GUARANTEED

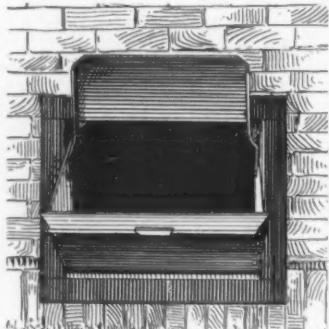
Write for particulars.

**American Pulverizer Company, E. St. Louis, Illinois**

## Boost Your Profits

### Handling Kewanee <sup>All</sup> Steel Coal Chutes

They are absolutely the best protection for the coal room window on the market—constructed entirely of boiler steel they cannot break.



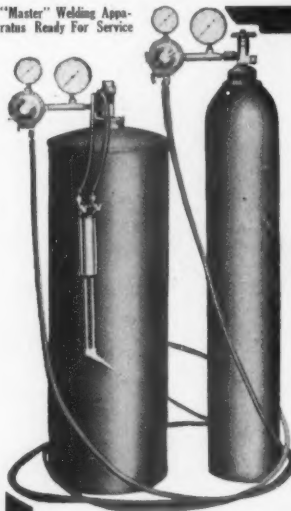
Kewanee All-Steel Coal Chute, Open, Ready for Use

You can easily sell them to the building trade and boost your profits. What's more, our co-operative advertising plan helps you do this.

Write for our agency proposition today.

**Kewanee Manufacturing Co.**  
KEWANEE, ILLINOIS

"Master" Welding Apparatus Ready For Service



## "Master" Oxy-Acetylene Welding & Cutting Apparatus

The  
Product of Experience

### FACTS! ————— NOT CLAIMS!

You save 75% by welding your own broken machinery parts. You make repair in your own plant quickly—permanently and economically.

You avoid long, uncertain and expensive shut-downs. Any ordinary mechanic soon becomes a proficient operator.

We will demonstrate "Master" Apparatus in your own plant, and will convince you beyond all question the necessity of having "Master" Apparatus on the job.

Quantity production enables us to make a very attractive price on "Master" Welding and Cutting Apparatus.

Write for Bulletin No. 100

**Engineering Sales  
Corporation**  
Railway Exchange Building  
Chicago, Ill.



"Master" Welding Torch

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

## OUR MILLS PULVERIZE ALL REFRACTORY MATERIALS

Cement Rock—Cement Clinker—Furnace Slag—Flint Clays—Gypsum—Phosphate Rocks—Chrome Ore—Hydrated Lime—Borite—Bones—Fullers Earth—Coal—Slate—Limestone and other materials too numerous to mention.

TO ANY FINENESS DESIRED WITHOUT USE OF COMPLICATED AIR SEPARATING DEVICES OR AUXILIARY SCREENS.

**THE GIANT GRIFFIN MILL**—For exceptionally fine finished Product.

**THE BRADLEY HERCULES MILL**—For pulverizing materials—50% thru 100 mesh sieve where large output is desired.

**THE BRADLEY THREE ROLL MILL**—For pulverizing—Phosphate Rocks—Limestone for Agricultural Purposes—Gypsum—Flint Clay, etc.

### There is a Bradley Mill Suitable for Every Purpose

Send us full information on Your Grinding Proposition and we will be glad to suggest Proper Grinding Mill for Your Particular Use

**BRADLEY PULVERIZER CO., BOSTON**  
BERLIN, LONDON

## What One Manufacturer Has Learned After Seven Years

About seven years ago we approached a large manufacturer, in whose process a certain material is ground, with the facts concerning the advantages to him of securing a more **finely ground** and **uniform** product by the use of the

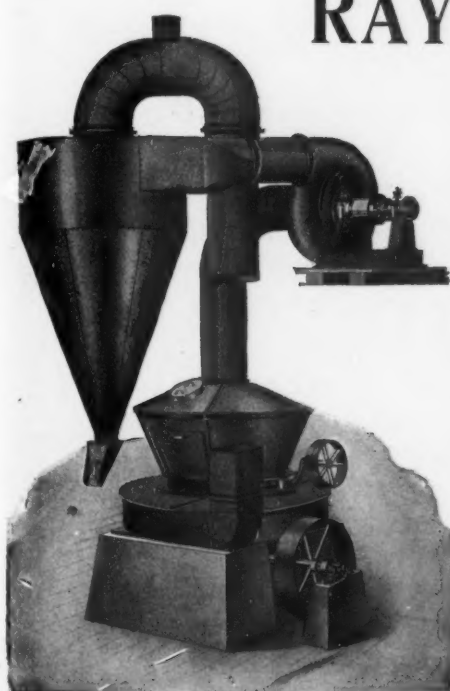
### RAYMOND SYSTEM OF GRINDING With Air Separation

He was not inclined to agree with us.

Since then several of his competitors making the same thing have taken advantage of the Raymond System, with the result that this first manufacturer has finally awakened to the fact that his competitors are getting a preference because of a finer and more uniform product.

This manufacturer is now putting the Raymond System in his plant and will unquestionably achieve the same results his competitors have enjoyed; a better product which will get the business for him and factory savings of considerable proportions.

The Raymond System has shown its ability to produce a better product, or a lower cost or both, in over 75 different kinds of material, with results in each case **guaranteed** in advance



Raymond Bros. Impact Pulverizer Co.,  
1301 N. Branch St., Chicago.

Please send us your Book on Modern  
Methods of Pulverization.

Name .....

Street .....

City..... State.....

SEND FOR  
THE  
←  
**RAYMOND  
BOOK—NOW**

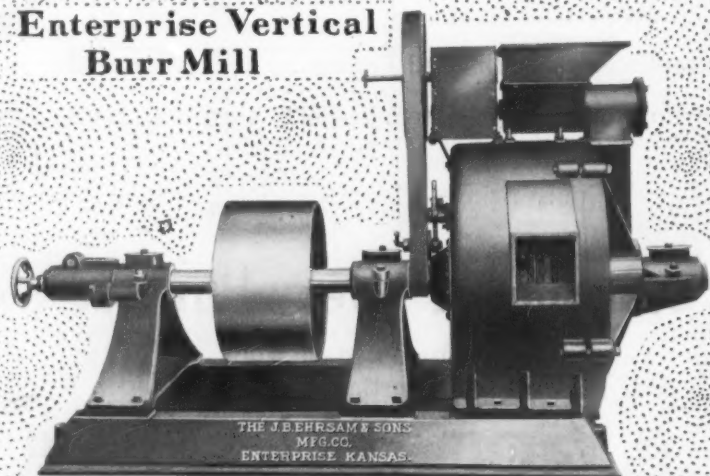
We design special machinery  
and methods for Pulverizing,  
Grinding, Separating and Con-  
veying all powdered products.  
We manufacture Automatic  
Pulverizers, Roller Mills, Vac-  
uum Air Separators, Crushers,  
Special Exhaust Fans and Dust  
Collectors. Send for the Book.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



# Equip your grinding plant with EHRSAM grinding & separating machinery

**Enterprise Vertical Burr Mill**

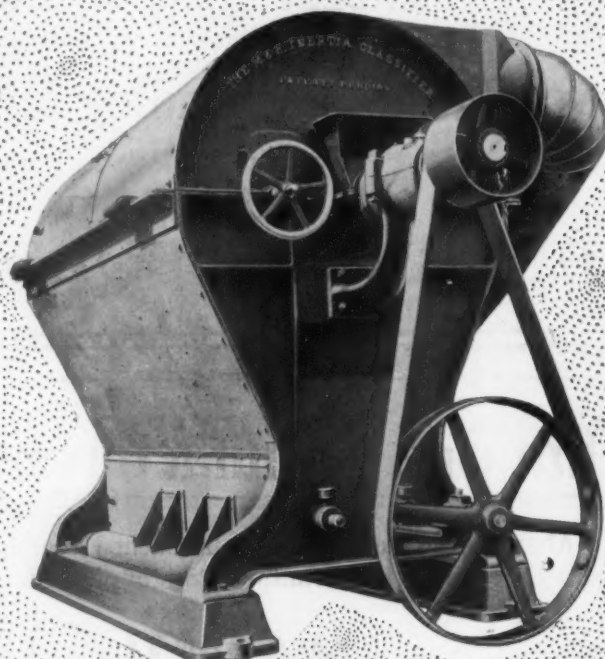


**THE MORSHEREHR SAM SYSTEM of GRINDING & SEPARATING** will enable you to produce a finer product without corresponding increase in power.

**SEND USA SAMPLE** of your material stating fineness and capacity required and we will furnish full particulars.



**Horizontal Burr Mill**



**Inertia Classifier**

**THE INERTIA CLASSIFIER** is of inestimable value in plants where a fine material is required owing to its low cost per ton capacity and owing to the small amount of power required per ton capacity.

It can be operated in connection with Burr Mills Hammer Mills or any other type of grinding Mill.

**J.B. EHR SAM & SONS**  
Manufacturers of  
GYPSUM PLASTER  
MILL MACHINERY. **MFG. CO.** ENTERPRISE,  
KANSAS.

# "Gates" Gyratory Breakers

*Over 7000 in Actual Operation*

To  
Facilitate  
Shipment  
Complete  
Machines



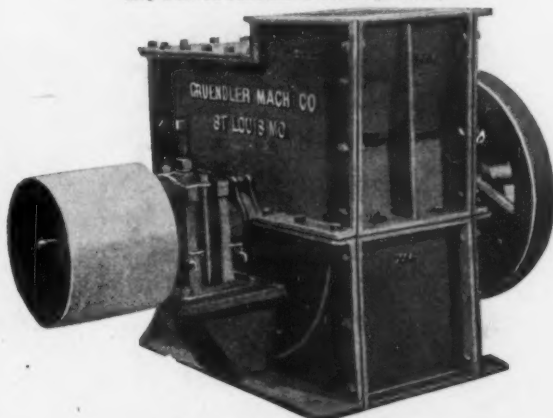
For  
Convenience  
of Those  
Operating the  
"Gates"

## Allis-Chalmers Manufacturing Co.

Milwaukee, Wis.

## GRUENDLER PULVERIZERS

Grind perfectly Limestone, Phosphate Rock, Coal, Brickbats, Coke, Kaolin, Shale, Marl, Fireclay, Bones, Tankage, Fertilizer Materials and Ores of all kinds. Any Desired Fineness in ONE Operation.



### One Customer Writes:

"The Crusher works to our entire satisfaction and we believe we have selected the best make for our purpose."

### Another One Says:

"The two Crushers you have furnished us have given entire satisfaction. We are now considering putting in another machine of larger capacity; kindly state lowest prices and sizes."

We manufacture these machines in sizes from 3 to 400 tons daily capacity. The entire interior is constructed of steel and they are built for great strength and durability throughout. They are easily handled, all adjustments being made from the outside.

*Write for Catalog and Prices*

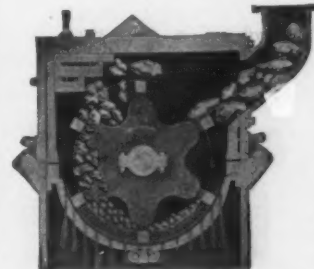
**GRUENDLER PATENT CRUSHER & PULVERIZER COMPANY**  
924-928 N. FIRST STREET SAINT LOUIS, MO.

## Demonstration Plant

entirely at your disposal, where we will be pleased to illustrate the following facts:

### The Gardner Crusher

1. Is of the hammer type.
2. Will crush any kind of material.
3. Requires comparatively very low power for its capacity.
4. Needs no special foundations and is easily transported (Heaviest piece in No. 1 is only 350 lbs.)



### Made in Four Sizes

Size	Weight Lbs.	Power	Feed per Hr.	Capacity (Tons)
No. 0	1,200	5-6 h. p.	3 in.	1-1½
No. 1	2,000	10-12 h. p.	4 in.	3-4
No. 2	4,000	20-22 h. p.	6 in.	8-10
No. 3	8,000	40-45 h. p.	10 in.	15-20

Equipped with ½ in. screen through which everything will pass.

90% through 20 mesh. 60% through 60 mesh.  
75% through 40 mesh. 50% through 100 mesh.  
65% through 50 mesh. 30% through 200 mesh.

Coarser or finer product can be obtained by changing the screens and speed of machine.

There are now a large number of Gardner Crushers in actual operation in the U. S. on all kinds of material. We, therefore, know by practical knowledge what our machine will do on most any material and we are prepared to prove our assertions.

**Gardner Crusher Co.** OFFICE: Fitzgerald Bldg.,  
43rd. St. and Broadway  
Demonstration Plant: 556 West 34th Street, New York

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



# Limestone Screenings

Now of little value, can be converted into a commodity commanding a fair price when ground into

## AGRICULTURAL LIMESTONE

WITH

## THE WILLIAMS UNIVERSAL FINE GRINDER!

The Williams Universal Fine Grinder will take your screenings and in one operation convert them into a uniformly fine product, admirably suited for agricultural purposes, a product now greatly in demand. This machine, as you will note in the cut, is adjustable to grind fine or coarse as desired, this adjustment being made while the machine is in operation, by a hand wheel on the outside.



Another feature about this machine to be remembered is that it will produce these ever uniform results **with the minimum expense for maintenance and power**, because the various methods of adjustment employed are by far the most practical yet devised. Further details regarding this machine are given in Bulletin No. 4, a copy of which should be in your hands.

Let us prove these statements; let us show you what results others are getting with this machine. Do not deprive yourself of the opportunity to increase your profits any longer. NOW is the time to ACT.

## THE WILLIAMS PATENT CRUSHER & PULVERIZER COMPANY

General Sales Department, Old Colony Building  
CHICAGO, ILL.

Works: ST. LOUIS, MO.

SAN FRANCISCO: 268 Market Street



### McCully Gyratory Crusher

has perfect suspension for main shaft, removable countershaft bearing and steel gears.

Efficient oiling devices, great strength and simple construction give a perfect rolling motion that minimizes power consumption and possibility of breakage. Described and illustrated in Bulletin PM-4-58.

## Rock Crushers

The largest crusher in the world operating on trap rock is a

### Superior Jaw Crusher

Installed March, 1910, in the quarries of the Birdboro Stone Co., Birdboro, Pa. It produces 3500 to 4000 tons per day.

Built in the following Receiving Opening Sizes: 26"x24"; 42"x40"; 60"x48"; 84"x60". Described in Bulletin PM-44-58.

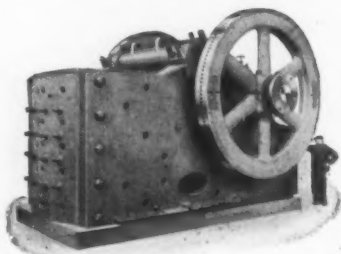
Write for Bulletins.

## Power & Mining Machinery Co.

Works: Cudahy, Wis. New York Office: 115 Broadway  
District Offices: Chicago, El Paso, San Francisco, Atlanta.

### PRINCIPAL PRODUCTS

Rock Crushing Machinery, Mining and Smelting Machinery, Cement Making Machinery, Wood Impregnating Plants, Locomotives, Gas Generators, Section Gas Producers, Cyanide and General Steel Tank Works, Woodbury Jigging System.  
M-277.2



WRITE US FOR PRICES ON

# PAPER BAGS

for

Lime, Cement, Plaster, Ground  
Stone, Fertilizer, Etc.

## The Urschel-Bates Valve Bag Company Toledo, Ohio

[Address all communications to the company at Toledo, Ohio.]

BRANCH FACTORIES: Niagara Falls, Ontario, Can., Pittsburgh, Penn.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS





## AUSTIN GYRATORY CRUSHERS

Made in Eight Sizes

50 to 5000 Tons Per Day

Plans and Specifications submitted and expert advice free on any problems involving rock-crushing or earth-handling.

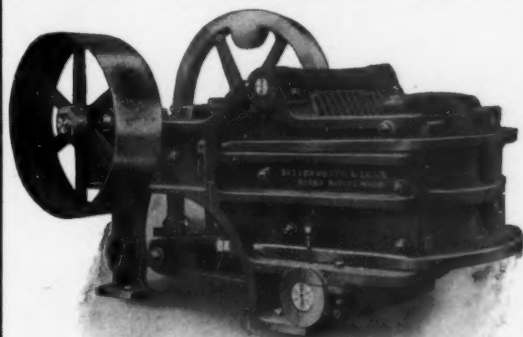
**AUSTIN MANUFACTURING CO.**

New York Office: 50 CHURCH STREET

CHICAGO

Canadian Agents: MUSSENS, Ltd., Montreal

We manufacture:—Road and Elevating Graders, Scarifiers, Road Rollers, Quarry Cars, Dump Wagons, Stone Spreaders, Street Cleaning Machinery.



## Jaw and Rotary CRUSHERS

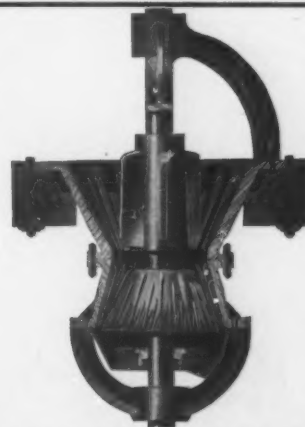
For all Rocks and Ores Softer than Granite

**GYPSUM MACHINERY**—We design modern Plaster Mills and make all necessary Machinery, including Kettles, Nippers, Crackers, Buhrs, Screens, Elevators, Shafting, etc.

Special Crusher-Grinders for Lime

**Butterworth & Lowe**  
17 Huron Street, Grand Rapids, Mich.

Nippers—17 x 19", 18 x 26", 20 x 30", 24 x 36" and 26 x 42"



Crackers—6 sizes—many variations.



The Grinding is Finished in one Operation

All working parts can be removed and replaced without disturbing belts, feeder, etc.

## BONNOT PULVERIZER

**Grinds and Screens Limestone, Raw Lime and Hydrated Lime**

**Does it at One Operation. Gives You Any Desired Fineness**

GRINDING LIME IS LARGELY A SCREENING PROPOSITION. THE BONNOT PULVERIZER HAS THE LARGEST SCREENING SURFACE AND CONSEQUENTLY THE GREATEST CAPACITY.

NO OTHER MACHINE LIKE IT IN THE ACCESSIBILITY OF SCREEN AND GRINDING PARTS.

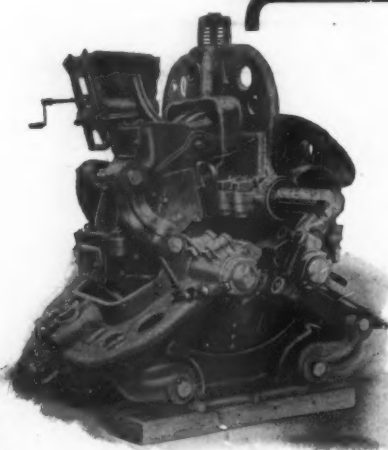
No. 4 Catalog Explains These Advantages

**THE BONNOT COMPANY**

909 N. Y. Life Bldg.  
KANSAS CITY, MO.

**CANTON, OHIO**

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



# MAXECON

## Means MAXimum of ECONomy

Years of experience with the assistance of our hundreds of customers has found THE SOLUTION OF GRINDING HARD MATERIALS. The MAXECON PULVERIZER combines highest EFFICIENCY, greatest DURABILITY and assured RELIABILITY. Uses the LEAST HORSE POWER per capacity. Embodies the features of our Kent Mill with improvements that make it MAXECON.

**WE DO NOT CLAIM ALL of the CREDIT for this achievement**

We have enjoyed the valuable suggestions of the engineers of the Universal Portland Cement Co. (U. S. Steel Corp.), Sandusky P. C. Co., Chicago Portland C. Co., Marquette Cement Mfg. Co., Western P. C. Co., Cowham Engineering Co., Ironton P. C. Co., Alpena P. C. Co., Castalia P. C. Co., Pennsylvania P. C. Co., and many other patrons.

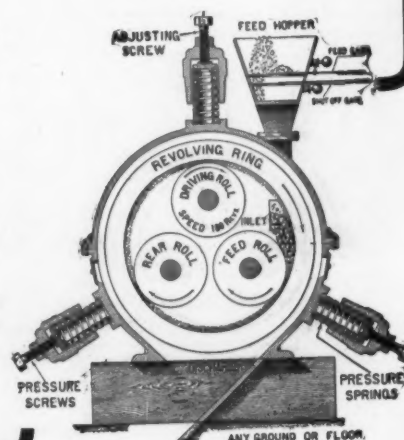
## THE RING WOBBLES

The FREE WOBBLING POUNDING RING instantly and Automatically ADAPTS its position to the variations of work.

Its GRINDING ACTION is DIFFERENT than any other; besides the STRAIGHT rolling action of the rolls, the SIDE to SIDE motion of the ring makes the material subject to TWO crushing forces and DOUBLE OUTPUT results.

# KENT MILL CO.

10 RAPELYEA ST., BOROUGH OF BROOKLYN, N. Y. CITY  
LONDON, W. C., 31 HIGH HOLBORN  
BERLIN-HOHENSCHOENHAUSEN



## PRODUCING SAND AND GRAVEL AT THE MINIMUM COST

THAT IS WHAT IS BEING ACCOMPLISHED BY USING THE

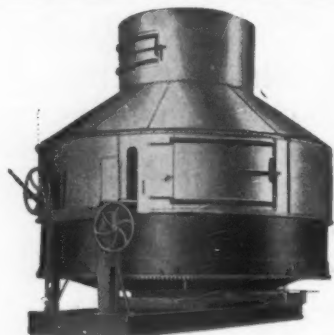
### Shearer-Mayer DRAGLINE CABLEWAY EXCAVATOR

(Patented)

A simple, rapid, efficient, economical machine for producing Sand and Gravel, doing stripping work and other earth excavation where it is necessary to excavate, elevate and convey the material. Works equally as well from wet or dry pit.

Large radius of operation, wide range of adaptability. Operated with a double drum friction hoist. Where it is necessary to deliver to screens or grizzly bars, it is especially efficient as the dumping is under POSITIVE CONTROL of one operator, thus insuring a well separated product. For further information, write

**SAUERMAN BROS., 1140 Monadnock Block, CHICAGO, ILLINOIS**  
DRAGLINE CABLEWAY ENGINEERS AND SELLING AGENTS



Clyde Hydrator with Hood  
"The common sense way"

## Don't Buy Hydrated Lime

at random; **specify "Clyde Process" Hydrated Lime.** The material that has the qualities **you** want, either as a consumer or a dealer. The presence of this **quality** has enabled Clyde operators to sell 90% of the Hydrated Lime used in America. Insist on getting "Clyde Process" Hydrated Lime, it will put snap into the appearance of your work, it will ginger up a sick selling organization. If your dealer or producer doesn't carry this material, send us his name, we will tell you where you can get it in your neighborhood. We furnish complete "Clyde Process" Hydrating plants with capacities from 1 ton an hour up. Interesting booklets for the asking.

**"The Man that put QUALITY into Hydrated Lime."**

**H. MISCAMPBELL, Duluth, Minn.**

Patentee and Sole Manufacturer of Clyde Hydrators

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



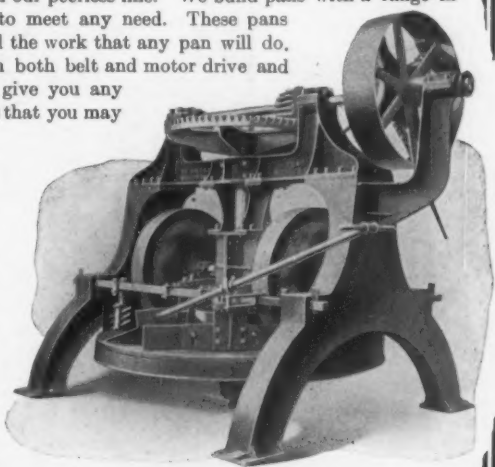
## YOUR PAN NEEDS

THIS pan is the identical pan required for your plant and it should speak to you convincingly of our pan quality. It has put many Sand-Lime Brick Plants on a paying basis and will make money for you. There is no line of pans made which will compare with the "Built Right, Run Right" line and your needs can be fully taken care of from our peerless line. We build pans with a range in size and capacity to meet any need. These pans are adapted for all the work that any pan will do. We have them in both belt and motor drive and will be pleased to give you any points on our pans that you may inquire about.

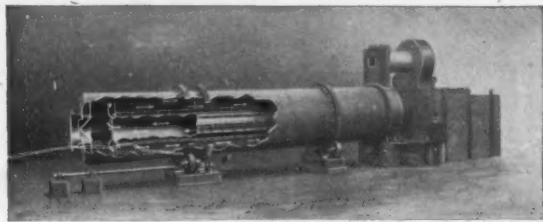
A poor pan is an expensive proposition. Its inefficiency shows in the quality of your product and the size of your repair bills. It also limits your capacity by handicapping the rest of the equipment. Real economy would suggest that your pans be the best possible. We will be pleased to talk pans or any other equipment with you.

*We Build Complete Equipments for  
Sand-Lime and Clay Brick Plants*

**The American Clay Machinery Co.**  
Willoughby, Ohio, U. S. A.



## SPECIALISTS IN THE DRYING FIELD FOR THE LAST 16 YEARS



*Section showing direction gases pass thru the dryer.*

## RUGGLES-COLES "DOUBLE SHELL" DRYERS

are used in all parts of the world, there being more than 400 installations. Over half a hundred are used for drying sand and gypsum at plaster, brick and cement plants.

We build six regular types of dryers, but for special work we build machines to order.

*Book "What We Dry" will interest you.*

**Ruggles-Coles Engineering Co.**

CHICAGO OFFICE  
McCormick Building

50 Church Street  
NEW YORK

**American Steel & Wire  
Company**

**Triangle Mesh  
Concrete  
Reinforcement**



GRAND CENTRAL STATION  
NEW YORK

WARREN & WETMORE, Architects

OVER 2,000,000 square feet of  
Triangle Mesh Concrete Rein-  
forcement used.

Triangle Mesh Concrete Reinforce-  
ment is made from Cold Drawn Steel  
Wire. Tensile strength 85,000 pounds  
per square inch. Furnished in rolls of  
150, 200 and 300 feet.

Chicago  
Pittsburgh

New York  
Worcester

Cleveland  
Denver

Export Representative, U. S. STEEL PRODUCTS CO., New York  
Pacific Coast Representative, U. S. STEEL PRODUCTS CO., San Francisco  
Los Angeles Portland Seattle

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS





Be a Monarch Man

The  
National  
Lime &  
Stone Co.  
CAREY, OHIO

## Safety First!

PROTECT yourself from the annoyance and expense occasioned by the use of inferior hydrates.

### Monarch Hydrated Lime

does not "pop" or "pit" in the wall.

It gauges with less plaster and spreads easier and further than others.

WE SHIP SUDDEN

## Helping You Sell Tiger Brand

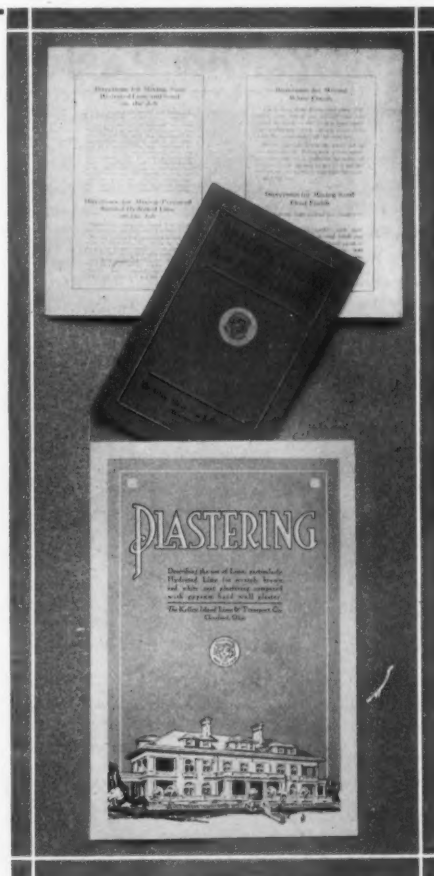
Fifteen thousand of these books have recently been sent to architects and contractors to tell them more about

### TIGER BRAND HYDRATED LIME

Over 1,000 other architects wrote for copies in response to advertising.

A great proportion of these men are specifying and using **Tiger Brand** which means easy sales for the dealer.

The Kelley Island  
Lime & Transport  
Co., Cleveland, Ohio



# BANNER HYDRATE LIME

Stands for the Four Important Essentials:

Best for Mason's Mortar

Best for Lubricating Plaster Mixtures

Best for Finest White Finishing Coats

Best for Cool Working Chemical Reactions

**NATIONAL MORTAR AND SUPPLY CO.**

A. H. LAUMAN, President

PITTSBURGH, PA.

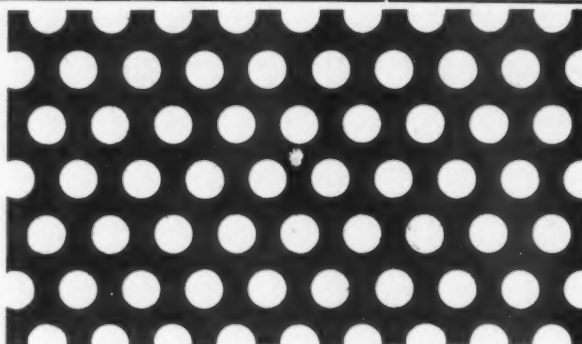


## PERFORATED METALS

Our Perforated Products have a reputation for accuracy and general high quality, shipments are prompt, and prices the lowest.

Our plant is equipped with modern perforating machinery, and we specialize in this product, elevators and conveyors, and SIMPLEX RIVETLESS CONVEYOR CHAINS.

WE SOLICIT YOUR INQUIRIES



**CROSS ENGINEERING CO.**  
CARBONDALE, PA.

## SCREENS

For Every Purpose

Revolving Screens

Conical Screens

Shaking Screens

FOR:

Stone, Gravel, Sand, Cement, Lime, Coal, Coke, Steel Floors and Gratings, Grilles and Ventilators, Fire Escape Platforms, Etc.

SEND FOR ILLUSTRATED CATALOG

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

# The Ohio and Western Lime Company

**WORKS AT**  
 Huntington, Indiana  
 Marion, O.  
 Gibsonburg, Ohio  
 Festoria, Ohio  
 Sugar Ridge, Ohio  
 Tiffin, Ohio  
 Genoa, O.  
 Limestone, Ohio  
 Lima City, Ohio  
 Portage, Ohio  
 Luckey, Ohio  
 Bedford, Ind.

MANUFACTURERS OF AND WHOLESALE DEALERS IN

Ohio and Indiana White Finishing Lime, Ground  
 Lime, Lump Lime, Fertilizer Lime, Hydrate  
 Lime, Cement, Plaster, Hair, Etc., Etc.

**Capacity**  
**8000 Barrels**  
**Per Day**

MAIN OFFICE: Huntington, Ind. Branch Office: Marion, Ohio.

**"If It Is Lime  
 We Make It"**

## Dealers, Attention!

We manufacture the **Strongest Lime in Ohio**. The reason! Our Lime Stone is of that quality. We can ship straight or mixed cars of bulk, barrels, Mason Hydrate, Lime Flour White Finishing Hydrate, also Clover Grower for improving the soil. Write or wire for prices.

**Scioto Lime and Stone Company**  
 Delaware . . . . . Ohio

We Are Now Prepared to Ship

## MITCHELL HYDRATED LIME

Made by the Kritzer Continuous System and prepared by air separation it can rightly be called

**THE QUALITY HYDRATE**

Our plant is complete in every detail. It is equipped with all the latest, improved, modern appliances to produce a superior product. It is operated by experienced engineers and chemists who are capable of producing a perfect hydrate.

Architects and Engineers who specify this brand are assured of a uniform, high grade product.



Dealers who handle it will find it gives their trade entire satisfaction. We can make prompt shipments with two lines of railroad at our plant.

Mitchell Lime has for sixty years been a standard high calcium product. It maintains the high reputation it has by its superior quality and uniformity.

**MITCHELL LIME CO.,** 1515 CONSUMERS BUILDING **CHICAGO, ILL.**  
 Works: Mitchell, Indiana

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

# HYDRATED LIME

## The Dealers' Opportunity for Increasing His Profit

Many retailers of masons' supplies are either overlooking or failing to appreciate how their sales might be increased by carrying HYDRATE in stock. It will not only increase their revenue directly but put them in touch with a wider range of customers who, in the course of time, might become purchasers of other supplies. This is particularly applicable in suburban cities or rural districts.

If a dealer were to circularize his community, setting forth the many advantages of HYDRATE in the suburban home where they have from a half an acre to ten acres, or for the farmer with a big farm, he would gradually build up a business in this commodity which would be surprising.

The average resident in a suburban district does not know that lime, scientifically hydrated, can be procured in small quantities and kept indefinitely in a comparatively dry place so that it can be used when the occasion presents itself. If this fact were known, practically every one of these suburbanites and farmers would keep a bag or two on hand constantly.

### SOME OF THE USES

A small box of HYDRATE kept in the cellar serves to absorb the damp and purifies the atmosphere, making it much more wholesome especially where foods are kept.

HYDRATE can be used for whitewashing. Quite a number of formulas can be secured and if it is properly mixed, it will not only make the very best whitewash, but it will act as a cold water paint.

One of the advantages of using HYDRATE is that it does not have to be slaked. The process of slaking is accompanied by no little danger, especially to the novice who does not understand the explosive nature of lime when it slakes.

HYDRATE is not air slaked lime and for that reason can be used any place that ordinary slaked lime can be employed. Air-slaked lime cannot be used for plastering, but HYDRATE can. There are always times when a little patching is necessary. Laying up of stone or brick can be easily accomplished, saving both time and money.

HYDRATE, when mixed with concrete fills voids and pores and not only makes the concrete more plastic and easier to use, but by increasing its density, makes it watertight. It also has a tendency to lighten the color and make a more attractive job. Add 10% to 15% to the mix.

HYDRATE is also a well known insecticide

and germicide and when used to dust around the chicken houses will not only have a tendency to purify the atmosphere but keep down vermin, especially if mixed with kerosene.

HYDRATE can be used to spray around the lawn or garden or around roots of trees, shrubbery, etc. It can be used with a mixture of kerosene or sulphur as a spray.

There are many more uses for lime around the farm that the average farmer is well acquainted with.

### ONE DEALER'S EXPERIENCE

We have in mind a retailer of masons' supplies who has, by circularizing the residential section on the outskirts, and the farmers immediately adjacent, to his township, created a demand for HYDRATE in small quantities and he says that the advertising which he has secured in this manner has brought him trade for cement, sewer pipe, coal, lumber and other materials. He puts it up in one, five and ten pound packages and sells it at a nice profit. He says that many of the farmers are now keeping a bag or so constantly on hand and they tell him that they would not be without it as it is one of the handiest things to have about the farm.

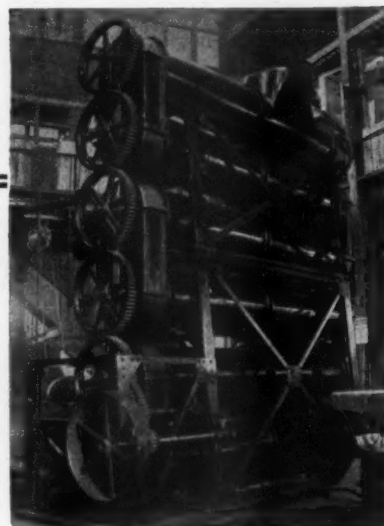
One dealer mentioned the case of a farmer living about eight miles from his yard who stated that frequently when he had a little whitewashing to do it would mean sending his man with a team to the nearest station for two or three bushels of quicklime. Frequently the dealer would be sold out of the product for a few days and this would necessitate the team making another trip, thus increasing the cost.

All that is necessary to work up a nice business in this commodity is a little advertising on the part of the retailer in order to acquaint the farmers with the advantages of hydrated lime. While it is not a new product it is comparatively so to the average suburban resident and small farmer and it is to these that the retailer must make his appeal. Many a farmer has been started to using HYDRATE in this way and has become a large user in time.

Retailers of masons' supplies will do well to give this subject some thought and if they are not thoroughly familiar with its possibilities, we would be pleased to give them any assistance or information which we have at hand to aid them in building up their trade in HYDRATE.

—Mason & Builder.

Our business is to install up-to-date hydrating plants and guarantee results. Our plants are all designed to meet local conditions. The CONTINUOUS PROCESS is the only process that has proved successful in hydrating both high calcium and dolomitic limes. While we do not recommend the batch system, however, we install them for making hydrate for the fertilizer trade, but not for general use. We would like to take this matter up personally with you and feel confident that we could interest you in our process and machinery.



KRITZER CONTINUOUS PROCESS

## The Kritzer Company

Chicago, Ill.

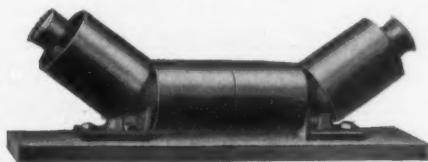
Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



# STAND-UP-TO-IT-IVENESS

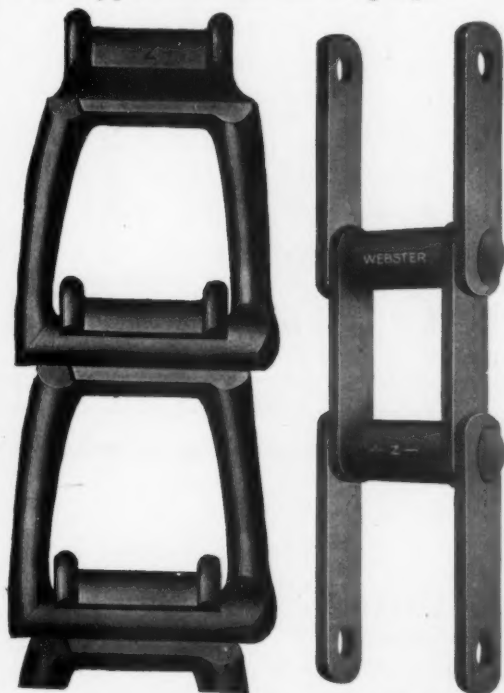
Is an element of prime importance in equipment for  
Handling Cement and Cement-Making Materials

Our manufacturing formulas all include large percentages of this essential ingredient—and that's just one reason why you buy our machinery to get best possible service through the longest period of time.



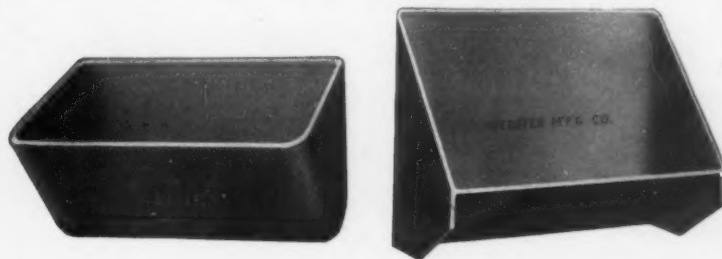
## CHAINS

All types and sizes for all purposes.



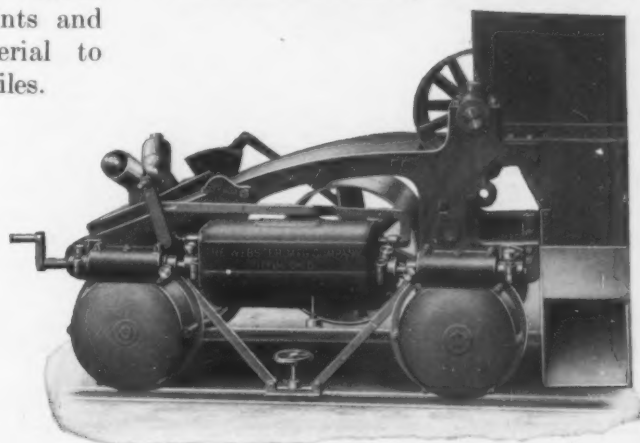
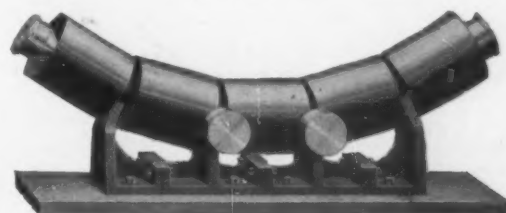
## ELEVATOR BUCKETS

In Malleable Iron or Sheet Steel. All Patterns.



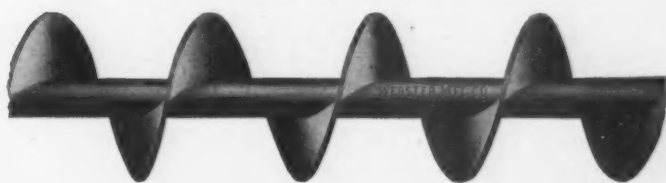
## FOR BELT CONVEYORS

Improved Troughing Rolls and our Automatic Tripper, which travels back and forth between any desired points and distributes material to storage in long piles.



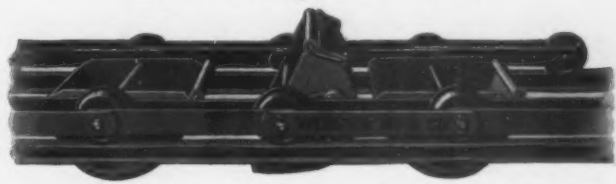
## SCREW CONVEYOR

In Standard and Heavy Weights. All Sizes.



## THE PERKINS PIVOTED BUCKET CARRIER

Best known device for handling hot clinker from kilns to storage or to coolers.



# THE WEBSTER M'F'G COMPANY

NEW YORK: 90 West Street

TIFFIN, OHIO

CHICAGO: McCormick Building

Philadelphia, Pa. .... Chas. Bond Co., 520 Arch St.  
Pittsburgh, Pa. .... Dempsey-Degener Co., 14 Wood St.  
Charleston, W. Va. .... C. L. Miller, 1511 Virginia St.  
Detroit, Mich. .... Palmer-Bee Co., Woodward Ave.  
Louisville, Ky. .... E. D. Morton & Co., 516 W. Main St.  
Birmingham, Ala. .... G. R. Mueller, 407 American Trust Building.

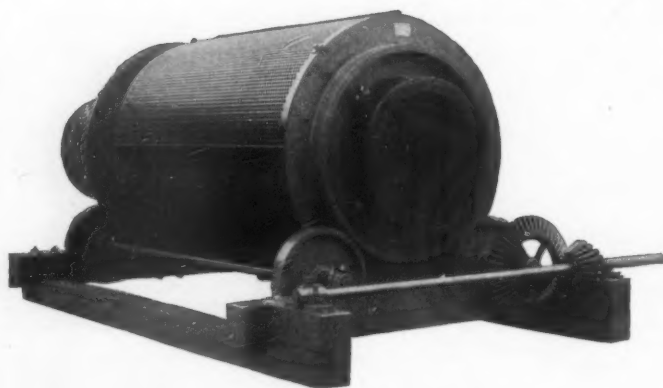
Douglas, Ariz. .... L. W. Mendenhall, 1019 Avenue G.  
Seattle, Wash. .... R. C. Brinkley, 524 First Ave. South.  
Denver, Colo. .... C. L. Dean, 1718 California St.  
Salt Lake City, Utah .... Utah Engineering & Machinery Co.  
Los Angeles, Calif. .... California Machy. & Equip. Co., 921 N. Main St.  
Vancouver, B. C. .... B. C. Equipment Co., Bank of Ottawa Bldg.

(62)

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

# JOHNSTON & CHAPMAN CO., INC., 2927 Carroll Avenue CHICAGO

ARE THE SOLE MAKERS OF THE



## Celebrated John O'Laughlin Screen,

the value of which has been demonstrated by many years of continuous service in **QUARRIES** of Limestone, Granite, Trap and other Rock. This machine is built to meet the requirements of Quarrymen, who want a durable practical machine for heavy work. Its construction renders it not only more effective in screening, but it is much shorter, stronger, easier-running, and less destructive of screen covers and bearings than the ordinary cylindrical screen. We will be glad to send to any address a circular explaining the merits of this screen.

WE ARE ALSO PERFORATORS OF ALL SHEET METALS, AND MAKERS OF FLAT, CYLINDRICAL AND CONICAL PERFORATED SCREEN PLATES FOR QUARRIES, MINES, CEMENT MILLS, REDUCTION WORKS, AND ALL INDUSTRIAL PURPOSES. PLEASE FAVOR US WITH YOUR INQUIRIES FOR PERFORATED SCREEN PLATES FOR ANY MACHINE, OR ANY PURPOSE.

*Remember the O'LAUGHLIN SCREENING MACHINE. It is a good one.*

**JOHNSTON & CHAPMAN CO.,** 2927 CARROLL AVENUE  
CHICAGO, ILLINOIS

## Perfect Lime Burning Economy

has resulted from the use of the

DUFF PATENT

## GAS PRODUCER INSTALLATION

This device is in successful and satisfactory operation in the following representative plants:

La Garde Lime & Stone Co., La Garde, Ala.  
Ohio & Western Lime Co., Gibsonburg, O.  
National Mortar & Supply Co., Gibsonburg, O.  
Knickerbocker Lime Co., Philadelphia, Pa.  
Dominion Lime Co., Lime Ridge, Quebec.

Installations now being made in other plants.

**DUFF PATENTS CO., Inc.**  
PITTSBURGH - - - PENNSYLVANIA

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

# This is YOUR Book, Mr. Dealer

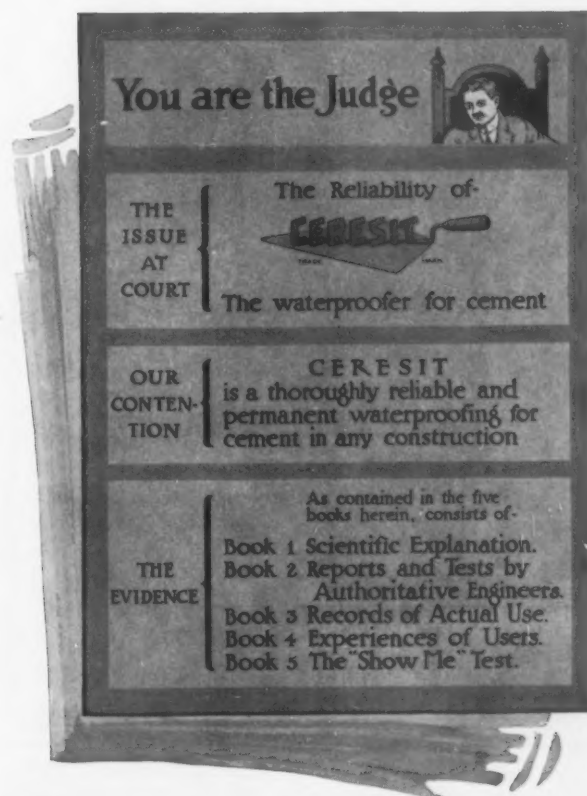
A Book in which you can stamp or print your name and send out to your "Waterproofing" prospects.

It's "chock full" of waterproofing facts, proofs and specifications. It carries conviction and brings sales.



## The Dependable Waterproofer for Cement

If you haven't written for the Ceresit dealer's proposition, do so *now*.



## There are still a few good territories open

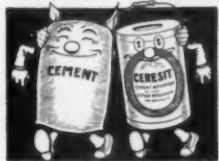
We're signing up new dealers every day, and if you're going to be in on the profits, you've got to act quickly.

This year is "Dealers' Year" with us. We're going to get thorough Dealer distribution. Just the same, we are advertising monthly to an audience of about 271,700 Architects, Engineers, Contractors, Builders, and others.

Next year, with thorough Dealer distribution, our real advertising campaign begins. And those Dealers who have secured territories will be "in" on it all.

*Write for our proposition and a copy of the "Book of Evidence"*

TWO GOOD THINGS TO USE



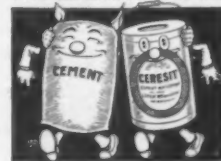
THEY GO WELL TOGETHER

## CERESIT WATERPROOFING COMPANY

924 Westminster Building, CHICAGO

FACTORIES: Chicago; Una, Germany; London; Paris; Vienna; Warsaw

TWO GOOD THINGS TO USE



THEY GO WELL TOGETHER

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS





Furniture Exhibition Co. Warehouse, North Pier, Chicago, Ill.  
1,300 Ft. Long, 120 Ft. Wide. Henry Ericsson, Contractor

## MEDUSA GRAY PORTLAND CEMENT

Used Throughout for Foundations, Brickwork, Etc.

CELEBRATED FOR ITS UNIFORM COLOR AND STRENGTH  
GUARANTEED TO PASS AND SURPASS STANDARD SPECIFICATIONS

Over 100,000 barrels of Medusa Portland Cement  
used by the United States Government in the  
construction of breakwater at Cleveland, Ohio.

Write for free illustrated booklets and samples of

MEDUSA GRAY PORTLAND CEMENT  
MEDUSA WHITE PORTLAND CEMENT  
MEDUSA WATERPROOFING  
MEDUSA WATERPROOFED CEMENT  
(GRAY AND WHITE)

**Sandusky Portland Cement Co.**  
SANDUSKY, OHIO



## THE IMPROVED EQUIPMENT CO.

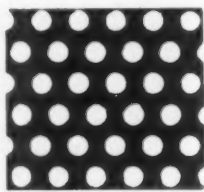
60 Wall Street, New York City

### COMBUSTION ENGINEERS

DESIGNERS AND BUILDERS OF

COMPLETE GAS PLANTS      GAS BENCHES  
LIME BURNING PLANTS      GAS PRODUCERS  
SPECIAL INDUSTRIAL FURNACES

## THE "BOURSE" CLEARING HOUSE FOR MACHINERY POSITION, ETC., ETC.



## "HENDRICK" PERFORATED STEEL SCREENS AND ELEVATOR BUCKETS

STAND THE TEST

Let us figure on your requirements.

**HENDRICK MFG. CO.**  
New York Office, 30 Church St.      CARBONDALE, PA.

# DIRECT HEAT DRYERS

FOR

**BANK SAND  
GLASS SAND  
ROCK, CLAY  
COAL, ETC.**

All Mineral, Animal and Vegetable Matter.

We have equipped the largest plants in existence and our  
dryers are operating in all parts of the world. Write for list  
of installations and catalogue S. C.

**American Process Company**  
68 William Street,      NEW YORK CITY

## BACON & FARREL ORE & ROCK CRUSHING - WORLD KNOWN ROLLS-CRUSHERS

EARLE C. BACON, ENGINEER  
HAYMEYER BUILDING, NEW YORK



## WORRELL'S ROTARY DRIERS

(First Efficient Rotary Fire Driers Built)

DIRECT OR INDIRECT HEAT,  
FOR SAND, CLAY, CRUSHED ROCK, GRAIN  
and other granular or fibrous matter. High Efficiency, Durability and Simplicity.

IMPORTANT: In sending for prices and printed matter state your  
required hourly capacity, approximate % moisture in your product, etc.  
or mail pound sample in tin or glass.

S. E. WORRELL

Established 1879

209 Center St.

HANNIBAL, MO

## Farnam "Cheshire" Lime Co.

OF CHESHIRE, MASS.

MANUFACTURERS OF THE

## Celebrated Cheshire "Finishing" Lime

Well known throughout New York and the Eastern States as the finest  
finishing lime manufactured. The special feature of this lime is its quick  
and even slacking, thus preventing any cracking or checking when put  
on the wall. It is the best lime used in the country today for all

### HIGH GRADE FINISHING WORK

Selling Department, 39 Cortlandt St., N.Y., C. J. CURTIN, Pres't.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

MAY 28 1914

©CLB302962

# Rock Products and BUILDING MATERIALS

INCORPORATING DEALERS BUILDING MATERIAL RECORD

Volume XIV.

CHICAGO, MAY 22, 1914.

Number 2

PUBLISHED SEMI-MONTHLY.

DEVOTED TO

Quarry Products, Cement, Lime, Plaster, Sand and Gravel, Clay Products and Building Specialities—Fireproof Building and Road Construction.

THE FRANCIS PUBLISHING COMPANY.

EDGAR H. DEFEBAGH, Prest.

Seventh Floor, Ellsworth Bldg., 537 So. Dearborn St., Chicago, Ill., U. S. A.

Telephone: Harrison 8086, 8087 and 8088.

EDITORS:

EDGAR H. DEFEBAGH, FRED K. IRVINE.

GEORGE A. OLSEN, Editor Retailers' Section. F. G. PULLEY, Associate Editor.

H. F. AKE, Secretary.

DRUSUS H. NICHOLS, Advertising Manager.

Communications on subjects of interest to any branch of the industry are solicited and will be paid for if available.

Every reader is invited to make the office of Rock Products and Building Materials his headquarters while in Chicago.

Editorial and advertising copy should reach this office at least five days preceding publication date.

TERMS OF ANNUAL SUBSCRIPTION.

In the United States and Possessions ..... \$1.00  
In all other Countries in the Postal Union ..... \$1.50

Subscriptions are payable in advance, and in default of written orders to the contrary, are continued at our option.

Advertising rates furnished on application.

Published on the 7th and 22nd of each month.

Entered as second-class matter July 2nd, 1907, at the Postoffice at Chicago, Illinois, under act of March 3rd, 1879.

Copyright, 1914, by E. H. Defebagh.

Although the activities of the present season have been slow in making a start, the normal amount of deliveries from the warehouses of the dealers have begun in the principal trade centers.

Without any mad rush about it, there is quite a bunch of business around for the man who goes after it. If you are not getting your measure of trade, perhaps you are not going fast enough.

The fireproof home is just as feasible and quite as attractive as the other kind. We might just as well get ourselves accustomed to the idea, for it is the way that future home building will be done. The beginning is already with us.

Big building projects in Pittsburg promise plenty of work for that active city in the present building season. Besides a very large department store, the court house and city hall and the million-dollar hotel are just about getting started.

The transition to the new banking system will not prove more than a noticeable feature in building activities after all. Building loans are just about the best form of investment, and there is no getting away from that fixed conviction.

Sections of the country in which the floods of 1913 necessitated a large expenditure of money for repair work, are not doing as much business as last year, but when the proper deductions are made the comparative figures are about the same for new operations.

Demand for the great staple products—cement, lime and plaster—has been a little off at the start, but is picking up nicely as the going gets things limbered up. Generally speaking, stocks are depleted and backward; orders will have to come up promptly, and this will bring a very brisk season.

Electric equipment in the big crushing plants is showing up in the matter of economy for reclaiming and rehandling the cheapest product that the world has ever known. Crushed rock has got to be just as much of a necessity to human happiness and comfort as our sugar and coffee, and at this time we have just begun to learn how to use it. In fact, the uses of cement are as yet in their infancy, for the concrete home is only beginning to be understood as a practical proposition.

Every enterprising dealer favors hydrated lime because it is the commercial way of handling the product so as to prevent losses, aside from the expense of the old-fashioned lime house. The contractors, now that they have learned how to use hydrated lime, prefer it because the carefully weighed package gives him a uniform measure for his mixtures and in this way he saves money by conserving the time of his high-paid workmen. When two economies join hands the popularity of the product is pretty firmly established.

Our suffragettes are more or less of a joke; at least, we have never taken any serious objections to their campaigns in this country. Our British cousins, on the other hand, have taken hold of the wrong horn of the dilemma and "riled" the women, and they are that much worse off. It's a foregone conclusion with us—American women have always done just as they pretty please, and they will vote, too, because they want to do so. Perhaps the British policy is a mistaken one, and if as much talent was used to guide the movement as has been employed to combat it, as a basic principle, their troubles would soon come to an end. "Humor 'em, and you have got 'em," is our well-established American way, and everybody knows we can't do without them.

Plaster board is a product which some of the dealers have not learned to recognize at its true value. If there is any part of a building that is difficult to have done in a satisfactory manner, it is the lathing and the plastering. Now plaster board is being manufactured in these days so as to provide the consumer with a material which, with a little care and patience, he can nail onto the studs himself, and cover it with heavy wallpaper and make a very presentable job. Such work has been done very successfully in the case of summer cottages and country residences and, in fact, there is no place where lath and plaster are used that the plaster board cannot be substituted for the wooden lath at a considerable saving to the owner with a pronounced improvement upon the quality of the job when it is finished. It is attractive to the customer and profitable for the dealer to handle.



News About People and  
Things of Importance

## With You and Me

Comments of Interest  
to the Trade

The eighth annual Chicago Cement Show will be held in the Coliseum, February 10 to 17, 1915.

Frederick B. Banks, of the Bath Portland Cement Co., has been elected president of the Northampton county branch of the Pennsylvania Protective Union.

Edward H. Healy, secretary of the Glencoe Lime & Cement Co., St. Louis, Mo., was recently elected president of the Webster Groves Trust Co., Webster Groves, Mo.

J. J. Bishop, of the Memphis Brick Co., Memphis, Tenn., has been appointed chairman of the Building and Trade Committee of the Business Men's Club of Memphis for 1914.

George A. Olsen, editor of the Retailers' Department of ROCK PRODUCTS AND BUILDING MATERIALS, became the proud father of a pretty little girl baby on May 14. "Ardis Georgiana" and her mother are getting along nicely.

C. T. W. Hollister, Lewis building, Portland, Ore., has resigned as coast manager for the Washington Brick, Lime and Sewer Pipe Co., of Spokane, Wash., and has been succeeded by Stewart Strong, formerly of the home office.

L. G. McConnell, district manager of the Minneapolis office of the Atlas Portland Cement Co., spent a week in Chicago, owing to the absence of D. H. McFarland, western manager of sales, who has been conferring with the chiefs at the Atlas office in New York City.

Stockholders of the Barron Red Pressed Brick Co., of Barron, Wis., elected the following officers and directors at the recent annual meeting: G. A. Koerner, president; Otto Berg, vice-president; K. E. Thompson, secretary and treasurer; directors, Otto Berg, J. P. Kohl, J. R. Ferris, F. A. Hulbert and G. A. Koerner. J. C. Jones, who acted as manager of the plant last year, is again in charge and plans on turning out at least 3,000,000 brick this season. About \$3,000 in improvements was put into the plant last year.

We hereby notify our advertisers and readers that Harold P. Sorensen is no longer in the employ of ROCK PRODUCTS AND BUILDING MATERIALS and does not in any manner represent this publication.

THE FRANCIS PUBLISHING CO.

R. O. Clark, who recently organized a new brick exchange in Berlin, Conn., has resigned as treasurer and member of the executive committee of the Central Connecticut Brick Co. H. S. Tallard was elected treasurer to succeed him until January 15, 1915. Richard Murray was elected on the executive committee.

Thomas B. Fogg recently became vice-president and general manager of the Toledo Stone & Glass Sand Co., which operates a large plant at Silica, Ohio, nine miles southwest of Toledo. Mr. Fogg was formerly general manager of the Terminal Railway and resigned that position to take up the management of the stone and glass sand company.

Frank J. Silha, who has been in charge of the brick department of the McLaughlin Building Material Co., of Chicago, has severed his connection with that company and become sales manager of the Wilcox Co., wholesalers and retailers of building materials, fuel, etc., specializing in washed sand and gravel. Their main yard and office is at 3690 Milwaukee avenue, Chicago.

E. F. Chapin, Jr., of the Universal Portland Cement Co., of Chicago, has been making a tour of the Iron Range territory of Minnesota in the interests of the company. Mr. Chapin is slated to become sales manager of the large plant of the Universal company, now in process of construction in Duluth in conjunction with the steel plant being erected by the United States Steel Corporation.

Henry S. Gray, treasurer of the Louisville Cement & Lime Co., and secretary and treasurer of J. B. Speed & Co., was honored last week by being selected as second vice-president of the Louisville Commercial Club. Mr. Gray is also president of the Transportation Club of Louisville. He reported that his concern was enjoying a considerable volume of business, though not up to normal and with no new large contracts in sight.

An interesting visitor at the offices of ROCK PRODUCTS AND BUILDING MATERIALS recently was George A. Jewett, president and active head of the Jewett Lumber Co., Des Moines, Iowa. Mr. Jewett came to Chicago for the purpose of attending the Forest Products Exposition and a few of the conventions held in conjunction with it. Like a large number of our readers, he "just had to pay us a visit." Readers will be favored shortly with an article on how Jewett tripled his business in a short period of time.

Frederick Selby, superintendent of the Keystone Plaster Co., Chester, Pa., who has had an interesting experience of nearly 27 years as superintendent of a plaster mill, writes that there has been a decided improvement in business during the past few weeks with his concern, and, although the Keystone company would necessarily have to do a very large amount of work to be called "busy," with its great mill capacity, yet Mr. Selby is looking forward to the time when every motor will move 24 hours per day.



A SUGGESTED SPRING CLEAN-UP.



## Policy of Rock Products and Building Materials.

"The real obligation of a newspaper should be to its readers," says N. D. Cochran in the Day Book, Chicago's adless daily newspaper. "There is an implied contract between a publisher of a newspaper and a reader that if the reader pays for his paper he is to get the truth. The publisher who colors the news, or suppresses the truth, or distorts it so as to deceive his readers, deliberately cheats his readers—just as much as a grocer cheats his customers if he puts sand in sugar or palms off oleomargarine as fresh country butter straight from the churn.

"If I were asked now what is the matter with Chicago, I would say the worst thing the matter with Chicago is that its press is not free; that its newspapers do not give the people the truth, that they try to mould public opinion by withholding, suppressing, coloring or deliberately distorting the truth.

"The reason for this is that they are edited from the counting room—where the cash for advertising comes in."

He quotes the instance of a well-known manufacturer of a breakfast food, who recently committed suicide. This manufacturer took an active interest in public affairs and naturally had opinions on various topics that he desired to be incorporated in the laws of the various states as well as the country at large. It seems that in order to have the newspapers print editorial and news items coinciding with his views, he would refuse to place his advertising with them if they did not deem it advisable to take his attitude editorially on the various public matters in which he was interested.

This manufacturer paid many thousands of dollars annually to newspapers and made millions by doing it; in spite of the fact that he made millions by the use of newspaper advertising space, he took the position that newspapers to which he paid money were under obligations to him.

There is a great deal of truth in the statements made by Mr. Cochran and as a result a great many newspapers are coloring the truth for their readers in order to please their advertisers.

It is gratifying, as publishers, to look back over a period of twelve years and know that this has not been the experience of ROCK PRODUCTS AND BUILDING MATERIALS. Our policy of co-operation and reciprocity has enabled us to at all times give the utmost publicity to manufacturers using our advertising columns as an aid in disposing of their goods. ROCK PRODUCTS AND BUILDING MATERIALS has never knowingly accepted an advertisement from anyone which it could not back up. It is the aim of this publication to at all times investigate the merits of the goods advertised, as well as the integrity of our advertisers. Thousands of dollars' worth of advertising have been refused because of the protection that we desire to give our readers.

Fortunately our readers and our advertisers are interested in identically the same class of material and in giving publicity to the manufactured products we enlighten our readers as well as boost the products of our advertisers. With the policy of getting personally acquainted with every one of our advertisers and a great number of our readers, we have always been in a position to give our readers such information as is helpful to them as well as to the manufacturers.

There is no manufacturer or set of manufacturers who dictates the policy of ROCK PRODUCTS AND BUILDING MATERIALS. Our editorial columns are for our readers and the editors are the sole judges as to what they should contain. We at all times invite contributions from the advertisers as well as the readers, but reserve the right to refuse to print such matter as we believe to be untruthful



# The Builder's Poet



## Cheer Up!

### I.

What's the use of being blue?  
No one's got it in for you.  
Why, darn it, man! you're lucky just to be alive and well.  
Of course you have your worries,  
But they're only little flurries—  
Just square your jaw and grit your teeth, forget 'em for a spell.

### II.

The world has trouble in it,  
You can find it any minute  
If you're looking, but the other fellow has it just the same;  
So just look your carcass over—  
Why, old scout, you're right in clover  
If you're present and accounted for and ain't blind, halt or lame.

### III.

So take this here prescription,  
Never mind my faulty diction,  
And keep your features smiling, don't forget that you're a man;  
For the world will treat you fairly,  
If you'll only meet it squarely—  
Take a brace, cheer up your face, and be a courage fan.

## Unready.

### I.

We boast of our flaunted riches,  
Our wealth of grain and gold;  
And we glory and gloat with exultant throat  
Over deeds of prowess told.  
In our strength we rest triumphant,  
Content in our power and pride;  
While on every sea, triumphantly,  
We point where our dreadnaughts ride.

### II.

With all our wealth and prowess,  
With our millions of brawn and brain,  
There is every cause to bid us pause,  
And wonder if all's in vain.  
For the warcloud finds us sleeping,  
For conflict unprepared;  
And we face the day when the crisis may  
Unreadiness find ensnared.

## The River of Doubt.

There's a curious river we're hearing about—  
It's the rip-roaring, riotous River of Doubt;  
It runs through a region whose people benighted,  
On being discovered, exclaimed "We're de-light-ed."  
The one who discovered these beings was fully  
As charmed, as he grinned, and then shouted out "Bully!"  
The river is muddy, and murky, and dank,  
And the octopus revels and roams on the bank;  
The muck-raking soil on each side of the same,  
An ominous import imparts to the name.  
It's the ultimate Hades abhorred by the pious—  
On the shore was the home of the late Ananias.  
To tell why this mystical river was found,  
T. R. may enlighten; I can't, I'll be bound.  
But it started an argument loved by that sage  
And landed T. R. back upon the front page.

Frank Adams Mitchell.

or detrimental to the industry which we represent.  
In ROCK PRODUCTS AND BUILDING MATERIALS the  
building material industry has a mouthpiece that

is fearless and just and entirely uncontrolled by  
the so-called "Big Business Interests" of the  
country.

# CEMENT

## Cement Manufacturers Hold Spring Meeting.

**Large Attendance on Hand—Interesting Business Sessions and Numerous Social Features  
Held at Philadelphia, May 11, 1914—Publicity, Technical Research, Sacks and  
Uniform Cost Sheets Among Subjects Discussed.**

The annual spring meeting of the Association of American Portland Cement Manufacturers was held in Philadelphia, May 11-14. Opening on Monday morning, the executive sessions continued at set intervals on Tuesday, Wednesday and Thursday, but it must not be believed that the whole time of the gathering was taken up with the discussion and transaction of business matters. The days spent in the Quaker City by each of the 108 members who attended were filled with many social events, which proved wonders in the breaking of the often monotonous transaction of the routine business carried on at such gatherings; and while these meetings of the organization have always been noted for the true-hearted good fellowship shown, that spirit manifested itself perhaps to a greater extent at this meeting than is ordinarily the case.

All the committees were called upon for their reports on matters that were given over to their judgment. Although the meeting headquarters were at the Bellevue-Stratford hotel, all the committee meetings, except the executive committee, were held at the offices of the association, 1526 Land Title building, and which are just one block from the Bellevue-Stratford hotel.

On Monday the convention convened at the Bellevue-Stratford, and after a period of hand-shaking and greetings, the publicity committee retired to the association headquarters for its business meeting, scheduled for 10 o'clock that morning.

The business sessions, as scheduled for Wednesday and Thursday mornings, were held in the Oak room at the Bellevue-Stratford, and at the close of these sessions luncheon was served. The first of the committees to meet, as has previously been stated, was the publicity committee; then came the committee on technical research, sacks committee, uniform cost sheets committee and the executive committee.

Thursday night the regular dinner of the association was served in the Garden at the hotel, which room adjoins the meeting room. The festivities of this occasion opened exactly at 7:30 p. m. The menu that had been provided needs little comment, as comment could not add to the tribute of the executives who had so ably planned it. In an endeavor to make the dinner a matter of pleasantry rather than one to be bored by business topics, no speeches were made, but in their stead quite an innovation was sprung on the assemblage. Through the arrangements made by W. S. Mallory, president of the Edison Portland Cement Co., with Thomas A. Edison, a moving picture show of Mr. Edison's invention of the "talking moving pictures" was given. The films displayed were most entertaining and brought forth much praise, while it was unanimously agreed that all had heartily enjoyed their reproduction.

Montreal, Canada, was the place decided upon for the holding of the next meeting of the Association of American Portland Cement Manufacturers, which is scheduled for September 14, 15, 16 and 17. A large attendance is to be expected at the Canadian meeting, as many of the delegates who were present at the Quaker City gathering expressed their desire and intention of meeting in September in Montreal.

Among those, and the firms they represented, who were present were:

### Attendance.

Allentown Portland Cement Co., Allentown, Pa.—J. W. Fuller, R. L. Cope, B. Enright and R. S. Weaver.  
Alpha Portland Cement Co., Easton, Pa.—A. F. Gerstell, F. M. Coogan and G. S. Brown.  
Alsen's American Portland Cement Co., New York, N. Y.—Robert S. Sinclair and W. P. Corbett.  
Ash Grove Lime & Portland Cement Co., Kansas City, Mo.—L. T. Sunderland and W. P. Sabin.  
Atlantic & Gulf Portland Cement Co., Philadelphia, Pa.—J. H. McQ. Carter and Clarence N. Wiley.  
Atlas Portland Cement Co., New York, N. Y.—John R. Morron, W. A. Holman, E. D. Boyer, J. R. Maxwell, J. L. Medlar, A. de Navarro and H. W. Maxwell.  
Canada Cement Co., Ltd., Montreal, Canada.—F. P. Jones and W. H. Ford.  
Castalia Portland Cement Co., Pittsburgh, Pa.—George W. Hackett.  
Cayuga Lake Portland Cement Co., Ithaca, N. Y.—M. E. Calkins.  
Chicago Portland Cement Co., Chicago, Ill.—Norman D. Fraser, J. U. C. McDaniel and A. J. Gates.  
Cinchfield Portland Cement Corp., Kingsport, Tenn.—John A. Miller, W. E. Law and W. M. Bennett.  
Crescent Portland Cement Co., Wampum, Pa.—David M. Kirk and R. H. Hughes.  
Dewey Portland Cement Co., Kansas City, Mo.—F. E. Tyler.  
Dexter Portland Cement Co., Nazareth, Pa.—Joseph Brobst.  
Diamond Portland Cement Co., Cleveland, Ohio.—Lyman A. Reed.  
Dixie Portland Cement Co., Chattanooga, Tenn.—Richard Hardy and J. H. Dalbey.  
Edison Portland Cement Co., Stewartville, N. J.—W. S. Mallory, George S. Bartlett and H. E. Kiefer.  
Glens Falls Portland Cement Co., Glens Falls, N. Y.—George F. Bayle.  
Giant Portland Cement Co., Philadelphia, Pa.—Charles F. Conn, R. E. Griffith, O. D. Havard and F. J. Jiggins.  
Heldberg Cement Co., Albany, N. Y.—F. W. Kelley and W. J. Fullerton.  
Huron Portland Cement Co., Detroit, Mich.—H. J. Paxton.  
Iola Portland Cement Co., Iola, Kans.—H. Struckmann and H. C. Koch.  
Kosmos Portland Cement Co., Kosmosdale, Ky.—Samuel Horner, Jr., and Charles Horner.  
Lawrence Portland Cement Co., Siegfried, Pa.—Ernest R. Ackerman, L. V. Clark and O. J. Johnson.  
Lehigh Portland Cement Co., Allentown, Pa.—E. M. Young, A. Y. Gowen, B. L. Swett, Ernest Ashton and Harold M. Scott.  
Louisville Cement Co., Louisville, Ky.—W. S. Speed.  
Michigan Portland Cement Co., Chelsea, Mich.—N. S. Potter and N. S. Potter, Jr.  
Thos. Nillen Co.—Robert Love.  
Nazareth Cement Co., Nazareth, Pa.—J. A. Horner.  
Newaygo Portland Cement Co., Newaygo, Mich.—D. McCool.  
Ogden Portland Cement Co., Ogden, Utah.—C. A. Day.  
Peerless Portland Cement Co., Union City, Mich.—W. M. Hatch.  
Peninsular Portland Cement Co., Jackson, Mich.—J. W. Boardman, Jr.  
Penn-Allen Cement Co., Allentown, Pa.—W. E. Erdell.  
Pennsylvania Cement Co., Bath, Pa.—J. W. Alker and W. N. Beach.  
Phoenix Portland Cement Co., Nazareth, Pa.—J. W. Walker and Ira L. Gilkyson.  
Portland Cement Company of Utah, Salt Lake City, Utah.—L. M. Bailey.  
Security Cement & Lime Co., Hagerstown, Md.—L. A. Cover, J. J. Porter, J. K. Barbour and P. C. Somerville.  
Texas Portland Cement Co., Cement, Texas.—E. J. Moors.

Tidewater Portland Cement Co., Baltimore, Md.—B. T. Scott and E. R. Stapleton.  
Union Sand & Material Co., St. Louis, Mo.—H. L. Block, A. H. Craney, Jr., and H. P. Johnson.  
Universal Portland Cement Co., Chicago, Ill.—E. M. Hagar, Gordon Wilson, W. M. Kinney, Robert T. Hall, J. P. Beck, B. F. Affleck, Morris Metcalf, L. C. Bihler, F. C. Guy and B. H. Rader.

Virginia Portland Cement Co., New York, N. Y.—R. W. Kelley, R. J. Hawn and Herbert Fetter.  
Vulcanite Portland Cement Co., Philadelphia, Pa.—Jno. B. Lober, Albert Moyer, W. D. Lober, J. Frank Baim, S. Warren Hartwell, W. R. Dunn and Thomas Barr.

Western States Portland Cement Co., Independence, Kans.—C. B. McVay.

Whitehall Cement Manufacturing Co., Cementon, Pa.—W. H. Harding and W. C. Kent.

R. W. Lesley, Philadelphia, Pa., honorary member.

A stockholders' meeting of the Atlas Portland Cement Co. was held at Northampton, Pa., last week, where John R. Morron, president, and W. E. Miner, treasurer, and others inspected the operations and the working of the plant at that point.

A large installation of electric apparatus for driving its mills will be installed by the Texas Portland Cement Co., Dallas, Tex. The equipment will consist of 71 motors, ranging from 5 to 500 horsepower, switchboard, controllers and accessories. The entire outlay of electrical equipment will be furnished by the General Electric Co.

Mill B of the Copley Cement Mfg. Co., of Allentown, Pa., was closed down a few days ago in order to dispose of some surplus stock, which had accumulated during the winter months, when it was more than usually active. Shipments continue to be normal with the Copley company, and it is expected that the plant will be in operation within a reasonable time.

Amended articles of incorporation were filed recently by the Louisville Cement Co., of Louisville, Ky., providing for the issuance of 1,000 shares of stock of a par value of \$100, or a total of \$100,000 of cumulative prepared stock, to be called employee's participating preferred stock. This stock is entitled to 6 per cent annual cumulative dividend before any dividend is declared upon the common stock.

The establishment of a large cement manufacturing plant is being fostered by E. E. Shelly at Nephi, Utah. Mr. Shelly has been in the East for the past few months promoting the new cement enterprise, and information comes from the site of the proposed plant to the effect that a deal has been consummated whereby it will soon be in process of erection. The raw material consists of a stretch of marsh land under which is a deposit of some depth.

Extensive improvements are still being made at the plant of the Standard Portland Cement Co., Leeds, Ala., work on which has been under way since last fall, under the direction of Fred H. Lewis, consulting engineer, Birmingham, Ala. It is expected that the improvements will be completed by the first of July, which will increase the plant's daily capacity by about 50 per cent. Electric power has been employed in the plant for the last four years and the plans under contemplation provide for the electrification of the quarries and auxiliary features also. The power is secured from the transmission system of the Alabama Power Co.'s hydro-electric development at Lock 12 on the Coosa river.



## Kansas Cement Makers Active.

**Collections Reported Fair, With Some Important Orders Coming In—Motor Truck Proves Ability to Climb Hills.**

Kansas City, Mo., May 18.—Strike troubles have caused some uneasiness among local cement men for the past few days, though the disagreement at present seems to have been settled satisfactorily to all concerned. Structural steel workers engaged on several big projects to which local cement manufacturers were delivering, struck, but the trouble has been settled amicably. Thirty cement workers at the new Union depot also went out because of minor difficulties, but returned to work a day or two ago.

Otherwise, the situation is satisfactory. Some new work of importance has materialized, though many big projects are still pending. Architects promise a big year, however, having plenty of "paper" buildings in their offices. The crop outlook is still flattering, several rains during the past fortnight having elicited expressions of gratification from agricultural centers.

The Iola Portland Cement Co. is reported to have secured the cement contract for the new Muehlebach hotel, for which the Westlake Construction Co. of St. Louis has the general contract. Practically all of the sales offices of cement plants in this section were active bidders. The report has not been confirmed, but is believed authentic in local cement and building circles. The contract is one of importance, the hotel being a million-dollar project.

Country trade is fair with the Ash Grove Lime & Portland Cement Co., which has continued its policy of selling chiefly to the small dealers in the interior rather than the contracting profession. Most of the agriculturists are devoting their attention to crops rather than building, but trade is normal nevertheless, according to the sales officers. F. R. Hillgrem, who has been working from Wichita, Kan., for the Ash Grove concern, has resigned and left for the Pacific coast. He has been succeeded in that territory by C. M. Sanders, who has had a good many years' experience in the business.

A good many paving contracts have been secured by the local sales offices of the Dewey Portland Cement Co., insuring activity for some time to come. The company is disposing of its 4,000-sack output without difficulty, even though officers would not object to piling up a little surplus stock for later delivery. Collections have been surprisingly good, considering the fact that conditions along this line have not been so uniformly satisfactory with the local trade. The secret, it is believed, lies in the fact that the sales and credit departments of the Dewey Portland Cement Co. are practically operated as one, despite the fact that C. E. Ellis is credit manager, and R. L. Williamson, general sales manager. The two recently decided to cooperate and the results of this plan have been improved risks. R. W. Moore, traffic manager for the Dewey Portland Cement Co., is recovering from an old injury, which has incapacitated him for several weeks past. Mr. Moore hurt his knee several years ago, and recently injured it again. Physicians found it necessary to re-set the injured member and the



QUARRY OF DEXTER PORTLAND CEMENT CO. AT NAZARETH, PA.

traffic manager has been confined to his home for several weeks. He will get back in harness in the near future, however.

Automobile trucks appear to be popular with local cement men, several companies recently investing in this form of delivery and transportation service. Cement manufacturers, incidentally, were the hardest prospects automobile salesmen had to convince of the practicability of auto trucks, because of the severe tests to which the latter were put by the hills of this city. The fact that cement men recently have purchased the trucks is taken to mean that they have passed through the various ordeals with flying colors, and their use is apt to become general.

## An Interesting Cement Plant and Its Equipment.

We are pleased to present on this page a view of the plant of the Dexter Portland Cement Co., Nazareth, Pa., which possesses in its equipment some very striking features which make for intelligent and economical handling of the materials used in the manufacture of the celebrated "Dexter" brand of Portland cement.

A peculiar yet potent factor in the making of cement is the geological conditions in respect of the general layout of the stone deposit of each plant, which makes an interesting study and precipitates problems of pertinent interest to each operation.

The Dexter Portland Cement Co. has taken the question of economic production of cement into hand and has adapted scientific principles to its manufacture. Its plant is situated about one mile west of Nazareth and has to its advantage the fact that the operations are located in very close proximity to the quarry, so that it is possible to secure all the rock from the quarry without bringing in the limestone, as the rock is the correct composition, no additions being necessary; in fact, the stone house and crushing plant are located practically in the quarry.

The stone from the shovels are loaded on cars and hauled by cable to the large Fairmont crushing roll which precedes the storage of stone in large concrete bins containing about 10 days' supply of crushed rock.

The plant is ball and tube mill in character, all of the mills being equipped with sylpeb apparatus to insure the extra fineness of grinding now considered essential in the manufacture of the highest grade of cement.

The stone is dried with the waste heat from the kilns and every modern labor saving device has been installed. The plant is equipped with six 100 foot kilns and turns out about 1,000,000 barrels of Dexter Portland cement a year.

The clinker storage arrangement shown so prominently in the picture was one of the first of this type installed in the East.

The plant has been in operation since 1900, originally manufacturing about 500 barrels per day, and has been gradually increased in size as the demand for Dexter Portland cement has warranted.

Samuel H. French & Co., Philadelphia, who were established in 1844, are sole agents for Dexter Portland cement.

## LOUISVILLE CEMENT DEMAND SEASONABLY TRANQUIL.

Louisville, Ky., May 18.—Cement manufacturers in this territory in a general way appear to be getting their customary shares of a somewhat limited business, the demands coming in in small lots instead of in the way of large orders. Though the volume of business is not as large as was expected, most of the manufacturers continue optimistic. Several continue the delivery of material for large contracts obtained some time ago. The Union Cement & Lime Co. reports a total volume of business as large as that of last year, though this company's officials are frank in saying that, with the increased equipment and the extended selling organization it is maintaining this year, the volume should have shown an increase. This is to say, more effort is spent for the orders received and the profits are reduced accordingly. As with other manufacturers a large amount of street reconstruction, railway reconstruction which is going on in the city, together with a considerable volume of small building operations, are furnishing the Union company with the larger portion of its lime and cement orders.

## NEW YORK CEMENT MARKET QUIET.

New York, N. Y., May 11.—There is not a great deal of activity in the local cement market at present, so far as the metropolitan district is concerned. The new subways will offer splendid opportunities for the sale of cement when excavation is completed sufficiently to allow the concrete work to begin in earnest, but as yet, it is said, there is comparatively little cement being absorbed in this way.

The lack of building operations in this city and the immediate vicinity is also working against the best interests of the cement industry. As it stands now, the market is quiet and featureless, but prices continue firm at levels that have prevailed for several months. Prominent factors in the Lehigh Valley district are quoting on the basis of 96 cents a barrel, free on board mill, for large contracts, and 95 cents a barrel on small jobs.



PLANT OF THE DEXTER PORTLAND CEMENT CO., NAZARETH, PA.



# CONCRETE

## Making Cement Watertight.

Interesting Experiments of Great Importance to Contractors and Engineers.

Extensive experiments are being conducted at the college of engineering of the University of Wisconsin to find a simple means of making concrete watertight. Results of great importance to contractors, engineers and farmers who have to do with concrete construction are said to have been obtained already, and still more important ones are expected. A large cement company in the Middle West is co-operating with the college by offering the facilities of its plant.

Already some interesting results have been obtained in the effect of the length of the time of mixing in a machine mixer of the batch type; the effect of the percentage of mixing upon the imperviousness of the concrete; the effect of having sand in dry condition before mixing, and the effect of having the sand wet.

The experimenters have found that good results are obtained if the concrete remains in the mixer from two to three minutes when dry materials are employed. For cases where the sand and gravel or stone are damp a considerably longer time is required. Therefore the use of wet sand should be avoided if possible. The experiments showed that mixtures consisting of one part cement, one and one-half of Janesville sand of the torpedo grade and three parts of Janesville gravel, when mixed to a wet consistency, are impervious to water when subjected to a pressure of 40 pounds to the square inch. Mixtures as lean as one part of cement to six parts of gravel (a graded mixture) have been made impervious at high pressure by using care in proportioning the amount of water and in mixing the batch. The specimens used in making these tests are cylindrical in form and so made that the faces of the cylinders, which are 13½ inches in diameter, are exposed to the predetermined water pressure. The thickness of the concrete through which the water must pass can be varied from four to 18 inches. Ample provision is made for cleaning both faces of the cylinder before placing it upon the testing apparatus. The apparatus itself is so arranged that very accurate tests can be made.

The importance of these experiments will be more sufficiently appreciated when it is understood that a large proportion of the trouble arising from poor concrete is due to the use of defective sand or gravel.

The department is also studying the effect of varying the percentages of cement and water, the graduation of the sand and gravel (by this is meant the size of the rocks and the fineness of the sand), the proportioning of the mixture, the thoroughness of mixing and the effects of different conditions on the hardening of the specimens.

### CEMENT GUN CONSTRUCTION COMPANY ORGANIZED.

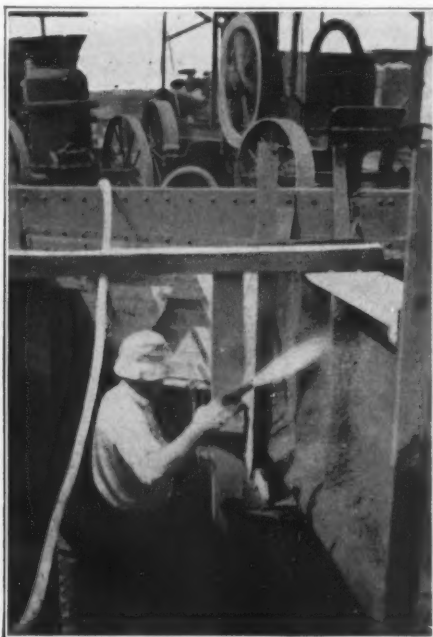
The Gun-crete Company has opened its new offices in the McCormick Bldg., Chicago. The firm specializes in cement gun work for engineering, industrial and mining structures. It has at its disposal a large amount of the most modern cement gun equipment and a very efficient working organization.

The Gun-crete Company introduces the Weber system of hollow concrete floor construction. These

floors are being erected without forms and are claimed to be very advantageous in every respect, being sound, fire and water proof, light and equally well adaptable for office buildings, warehouses, factories and residences. The firm will license contractors everywhere to build such floors.

Another specialty of the firm is the encasing of structural steel work for buildings, bridges, etc., for rust and fire protection.

Carl Weber, president of the Gun-crete Company, is one of the best-known concrete engineers in America. He is the inventor of the reinforced concrete chimney, of which thousands have been built in this and foreign countries, and has designed and built a large number of other important engineering structures. He has been connected with cement gun operations for some time and is consid-



GUN-CRETE NOZZLE AT WORK.

ered to be one of the leading experts in this line of work. The company has incorporated with a capital stock of \$20,000. Other officials are J. V. Schaefer and Julius A. Johnson.

The Bell Construction Co., Box 376, Lexington, Ky., has been organized to manufacture cement products. H. K. Bell is president.

The Georgia Cement Burial Vault Co., Newman, Ga., has been incorporated with a capital stock of \$5,000 by C. M. Amis and W. M. Camp.

The Concrete Mixing & Facing Co. has been organized in Chicago with a capital stock of \$5,000 by H. B. Kirkland, Estelle Pearee and Edward Wray.

The Southeastern Concrete Products Co., Montgomery, Ala., is enlarging its plant by the erection of two additional buildings. T. A. Davies is president of the concern.

The Delta Cement Tile Co., Greenville, Miss., has been incorporated with a capital stock of \$50,000 by LeRoy Percy, Morris Rosenstock, J. H. Crouch and others. J. P. Gooch, Jr., is manager.

The Culley Cement Block Co., of Louisville, Ky., which recently doubled its plant, is going extensively into the fancy block work. It is turning out a line of concrete porch columns which it finds a ready market for.

## Louisville Concrete Concerns Well Supplied with Work.

Figuring, However, Is Rather Close, While Orders Given Are Mostly for Small Jobs.

Louisville, Ky., May 18—Some of the concrete construction men in Louisville are complaining that novices in the business, themselves not sufficiently experienced to be able to figure costs accurately, are hurting things in this line very materially. When it was suggested that beginners who contracted for less than cost could be depended on not to remain in business very long, these contractors who complain, countered with the observation that a new crop of novices appeared every year.

Foundation work for the small houses that are going up and a considerable amount of sidewalk construction are giving local contractors a good deal of work. One objection, though, is that the work to be done is limited and that contractors are figuring very closely so that profits on such work as is landed are not what they ought to be.

The Standard Concrete Products Co., manufacturers of cement blocks and trimming stones, reports a heavy business to date this season, together with a satisfactory outlook for the rest of the year. Most of the work, it was stated, consisted of small orders, but the company is equipped to handle them with almost the same degree of profit that it gains in the larger orders, so there is no complaint.

The Western Concrete Construction Co., according to Edward P. Wulf, the president, began last week on the laying of a considerable amount of sidewalks for the city. "We are not going to get rich on it, however," he said. In a general way business is holding up pretty well with the Western Company though it is not operating to capacity.

Local contractors have noted with interest that Maysville, Ky., concerns competed successfully with Ohio competitors for the erection of a \$45,000 high school building in New Richmond, O. Oliver Hord, of Maysville, will do the foundation and reinforced concrete work, and Murray & Thomas the terra cotta work.

Operations on two of the largest of the concrete jobs under way in Louisville, the Beargrass Creek job and the extension of the Louisville & Portland Canal, the former being done by J. H. Cahill and the latter by Henry Bickel, are moving forward at a normal and satisfactory rate. Mr. Cahill, who is finding most of the rubble material he needs in the bed of the creek itself and in the excavating operations he finds it necessary to do, will shortly pour cement on another large section of the work. The canal operations have been delayed somewhat by water, though excavating is going forward rapidly now and definite announcement is expected soon as to when the work will be ready for the concrete pouring on a large scale.

The Hartford Cast Stone Co., Hartford, Conn.; incorporators, Charles L. Strong, C. S. Chisholm, Joseph A. Ferland; \$50,000.

The Excelsior Mixer & Machinery Co., of Milwaukee, has been incorporated with a capital stock of \$25,000 by O. H. Schultz, H. J. Schuerbrock and H. L. Kuehn.

The Cement Products & Construction Co. has been incorporated at Eau Claire, Wis., with a capital stock of \$20,000 by R. L. Rickman, R. W. Bingham and Charles Dufore.

Jaeger & Heiss, a new concrete construction firm, has been organized at Glenwood City, Wis., by A. W. Jaeger and John Heiss, Jr., and has purchased the concrete block plant of E. E. Stuart, known as the Glenwood City Concrete Works. Considerable new equipment will be added to the plant.

# GYPSUM PRODUCTS

## Largest Gypsum Plant in the World.

Pictured on this page is an impressive view of the largest plant for the manufacture of gypsum products ever constructed. The hand of genius was surely instrumental in the building of this mammoth institution, because every feature known to mankind has been incorporated in this recently completed plant of the United States Gypsum Co. at Oakfield, N. Y., which makes for efficiency and economy in producing the various items of gypsum products, which have found such a wide usage in the past few years among builders of the more progressive type.

In this wonderful group of buildings and its more wonderful equipment are the well-known U. S. G. products "Sackett" plaster board and "Pyrobar" partition tile made, for the plant has now been in operation for some little time. It is located directly over the gypsum deposit, which is mined and drawn up through the shaft into the plant. The output of the mine, which is worked up into Sackett plaster board and Pyrobar partition tile, is 350,000 tons. The capacity of the wall plaster plant is 250,000 tons, while that of the Sackett plaster board plant is 5,000,000 square feet a year. The capacity of the Pyrobar tile plant is 10,000,000 square feet a year.

These colossal figures lend striking emphasis to the magnitude of the plant and serve as a forcible index to the constantly increasing use of these really fireproof building materials. The plant was constructed on the unit system, so that it can be immediately enlarged. The wisdom of this plan has already been demonstrated, for it has been found necessary to make additions in the way of a bag warehouse, two stories high, 125 feet long and 50 feet wide. The company is also putting in a new fireproof sand drying plant and a bulk sand storage house which, when completed, will add a total of 400 feet to the length of the present plant.

The gypsum deposit on which the plant is located is claimed to be equal to any in the state of New York, or east of the Alleghenias. From it the company not only makes Sackett and Pyrobar, but also manufactures a general line of prepared plaster and finishes, both trawl and sand flow.

The concern is fortunate in that it has its own sand bank, which is located near the plant, material being conveyed to the mill in tram cars. This feature is rare in the operation of a gypsum plant and is an economical factor not to be overlooked.

In the mill there has been installed many special

types of machinery designed by the company's own engineering department, and these advantages, together with the careful supervision of the organization back of the goods, develop products that have received world-wide recognition because of their actual merit and the economy attached to their use. The arrangement of the mill is such as to minimize the cost of production and to sustain absolute uniformity.

The mill yard comprises 17 acres and, like the interior of the plant, is laid out with strict observance to economy in handling the products. The plant is located directly on the main line of the West Shore Railway, 35 miles from Rochester. In the mill yard are many sidings and spurs, over which the products are switched with the company's own equipment. The Pyrobar plant, as will be noticed in the picture, is located a short distance beyond the mill proper.

The entire plant represents a distinct advance in plaster mill construction. The Pyrobar roof construction over the main parts of the mill has created much interest amongst architects in that section. Brick and steel, with concrete foundations, are the general mediums of construction.

The products of the Oakfield plant are shipped as far south as Tampa, Fla., although another new mill, located at Plasterco, Va., supplies the bulk of the Southern demand, which is of an enormous volume.

The United States Gypsum Co. maintains a department of publicity which is a forceful and important factor in the wonderful organism of this great concern. From this source much literature of an educational character is constantly being distributed in quarters which will profit most by this valuable information. Such pamphlets as "Sackett Makes Your Building a Better Investment"; "Sackett Saves the Building"; "Sackett Increases Home Comfort and Safety," and "Sackett Stops Fire—Told by the Camera," contain so many rich and useful suggestions that they should be added to the library of everyone interested in any way in modern building materials and methods of construction.

Standard Gypsum Co., Portland, Me., has been incorporated for \$500,000 by John H. Pierce, Ernest M. White and Ralph O. Brewster, Portland, Me.

## LOUISVILLE PLASTER SITUATION IMPROVING.

Louisville, Ky.—Business with B. J. Campbell & Sons, in the wall plaster and kindred lines, is gradually picking up, according to Mr. Campbell. Things looked blue for a while, Mr. Campbell said, but are now taking a turn for the better. A similar state of affairs exists, it was said, with the Atlas Wall Plaster Co. Both these companies are reasonably sure that they are getting their full shares of what business there is going on.

## SAN FRANCISCO PLASTER NOTES.

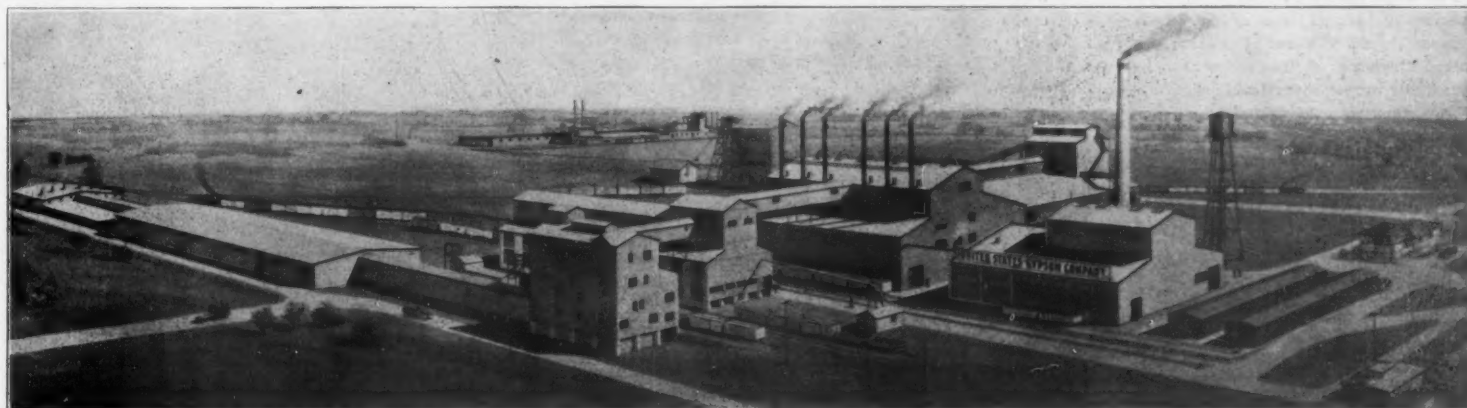
California plaster men report an increasing popularity for plaster residences, this being especially true of the suburban cities on the east side of San Francisco Bay. A large number of such houses are being erected in Oakland and Berkeley by contractors and speculators who are erecting houses for sale and who wish to build attractive homes at a low cost.

The San Francisco Board of Public Works has received 14 bids for the plastering of the new San Francisco City Hall. The lowest of these was that of Gustave Johnson, for \$171,000.

W. O. Williams and W. C. Martin, of El Centro, Cal., have organized a company to work their gypsum deposits near that place. Crushers and pulverizers are to be installed at once.

W. W. Sawyer, manager of the Rockford Wall Plaster Co., Rockford, Ill., advises us that business in their section is especially good and is getting better each day. He further states that prospects are exceedingly bright for the coming season.

The Wheeling Wall Plaster Co., manufacturers of high grade gypsum products and extensive dealers in building materials of various kinds, has recently increased its capital stock \$50,000 to take care of a number of improvements which have been installed. The additional stock has all been subscribed, which now gives the company a paid up capital of \$200,000. R. W. Marshall, president of the Wheeling company, finds that the sales for the past four months of this year have almost doubled those of the same months last year, with the outlook for the balance of 1914 splendid.



NEW PLANT OF U. S. GYPSUM CO. AT OAKFIELD, N. Y. "PYROBAR" PLANT IN THE DISTANCE. BELOW, LEFT TO RIGHT—"SACKETT" WAREHOUSE, "SACKETT" MILL, MIXING MILL, MINE SHAFT HOUSE, CALCIMINING PLANT AND POWER HOUSE.



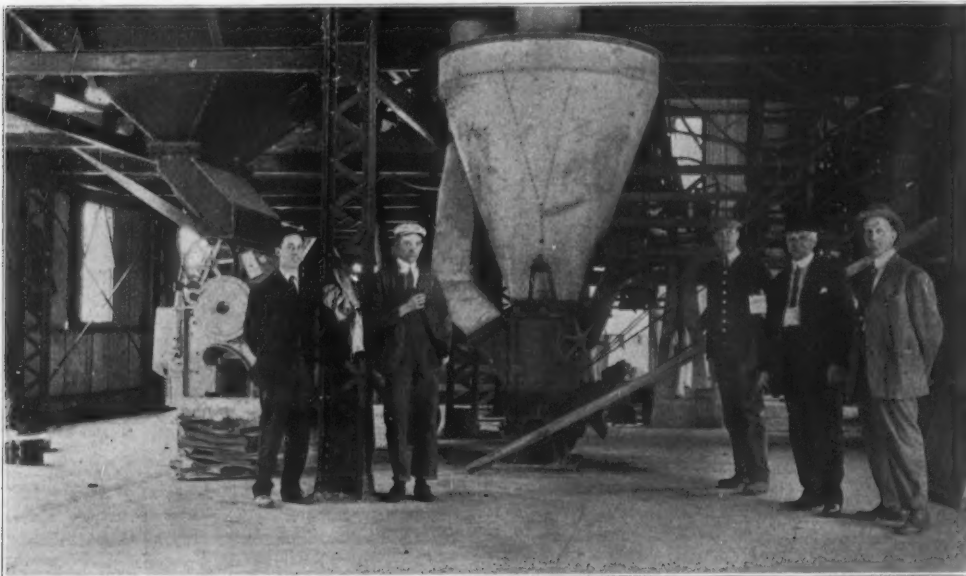
# LIME

## Mitchell Hydrated Lime

### Famous High Calcium Lime of Central Indiana Commercially Hydrated.

If one were to tell briefly the full history of the development of the lime industry, there would be a brief chapter about all that happened before the hydrates were first introduced, and at that

limestone. The deposit extends southwest from Mitchell about one hundred miles and northeast only a few miles, and outcrops in very few places, the principal outcrop being the original Mitchell



OPENING CEREMONIES OF THE NEW MITCHELL HYDRATING MILL.

point would begin the "interesting reading." This is not a suggestion to would-be authors, because she is writ that way already, but an observation reflective of the tremendous influence that the changing of the commercial form of the most venerable product of rock has had and will have upon the industry.

Mitchell, Ind., named after a pioneer Hoosier, is located at the crossing of the B. & O. and Monon railroads; the first extending from Cincinnati to St. Louis and the latter from Louisville to Chicago, so Mitchell is about equally distant from these four great market centers.

The construction of the B. & O. railroad for this stretch was the first real thing that happened. True, previous to that one "Abe" Lincoln and another "Dick" Johnson and probably John H. Wheat about the same time perhaps hunted mink and coon and other fur bearing animals, which was a necessary part of pioneer life. Occasionally, too, these men and others like them would have to "take a crack" at the Indians who came down from the "upper river country."

They succeeded for the most part in driving the Indians away from civilization, and that may explain modern Chicago. The B. & O. was not allowed to run too close to the great national pike—that is, the original railroad with a name too long to remember, which actually acquired the right of way and constructed the line. At this early period the Irish were not afraid of work, and the railroad jobs were all done with the pick and shovel and wheelbarrow. But when they struck "Mitchell's place" they stayed long enough to "start a town," for the hard white rock was slow pickings in that neighborhood, and that was the early discovery of what has been since classified by the Indiana state geologists as Mitchell

discovery. Years after the B. & O. road was built Chicago began to be important, sufficiently so to induce a number of enterprising Louisville men to build a railroad to the new northern town. They crossed the B. & O. with their construction at Mitchell and then the value of the lime rock was first recognized.

It is almost a pure carbonate of lime semi-crystalline, and as soon as the quarries were opened it was found to lie in horizontal beds—"as uni-

form in composition and texture as the deep sea, and almost as much of it."

Numerous early quarries and limekilns were operated and all of them were profitable for the times, and the reputation of Mitchell lime was so founded. With the growth of the population of central Indiana the importance of Mitchell lime became wider known and the properties more valuable in proportion. Steadily growing up to the last day of the nineteenth century, with the dawn of the twentieth a new era began for Mitchell lime quarries. The Lehigh Portland Cement Co. built their great mill at Mitchell, which took several years to complete, so that by 1905 the cement product of Mitchell limestone became one of the most important factors of that trade. About this same time the sand-lime brick industry was getting upon a commercial basis, and all of their troubles were lime troubles at first. Mitchell lime being suggested, proved to be the "just right" article and much of this trade was attracted. Even the gigantic quarry operations of the cement mill could not put the attractive lime business entirely in the shade, although cement interest ran high when the product of the mill showed fine quality.

Mitchell lime steadily grew as a lump lime product and for a long time it was deemed inexpedient to attempt to hydrate a lime of such high calcium character. In the minds of some experienced lime men there was a doubt as to whether hydration was practical in the case of such a lime. This position was indeed well taken, for such a lime could never be satisfactorily hydrated until the introduction of the Kritzer continuous process.

When Bernard L. McNulty, of Chicago, became the managing head of the sales department of the Mitchell Lime Co. there was a change, for he was acquainted with lime, having studied subjectively for several years in favorable surroundings, and he knew the principle and applications of the Kritzer way of handling high calcium limes particularly. With all the enthusiasm of youth and full preparation for the work before him, Mr. McNulty soon pushed his output up to capacity and, like Alexander, looked for new worlds to conquer. Taking on the LaGarde Lime & Stone Co.,



HYDRATING MILL OF THE MITCHELL LIME CO., MITCHELL, IND.



at Anniston, Ala., he still keeps his hand upon the throttle of the Mitchell lime output through George L. Hird, who keeps the Chicago office in the Consumers' Building.

In January this year announcement was made that the Mitchell Lime Co. was constructing a big hydrating mill at their plant, and it is now completed and operated successfully. Mitchell hydrated lime has been used for years by those who did their own hydrating, as in the case of the sand-lime brick industry, and in that way it is well known and reliably used as a staple supply. But commercially we have the pleasure here and now to introduce Mitchell hydrate to the trade for the first time.

The big plant at Mitchell is one of the finest mills ever built for hydrating lime. It is of concrete and steel throughout in its construction and equipped with fully adequate machinery for every part of the process of making and handling the product. This includes the Kritzer hydrator, furnished by the Kritzer Co., of Chicago.

At the time of the starting up of the mill Mr. McNulty "peeled" his coat and trucked the first ten bags of Mitchell hydrated lime into the car. There



OLD PLANT OF THE NATIONAL MORTAR & SUPPLY CO., AT GIBSONBURG, OHIO, WITH KILNS SUPPLIED WITH DUFF PATENT COMPANY'S PRODUCERS.

## Gas Producer Burning.

Of recent years the importance of fuel economy has become the paramount study of every lime manufacturer. The direct firing of coal to the kilns now widely practiced is of itself comparatively an innovation, for every lime burner can remember the time when no other fuel could be considered but wood.

The development and application of science in all the arts has intensified the quest for ultimate economy in industrial processes of every kind. The inherent value of atomization has led the lime industry up to the idea of firing with gas derived from coal rather than with the direct coal fire, because the combustion efficiency of the gas is very high, while that of the coal is very low. Again the combustion of gas is prompt, uniform and not easily influenced by surrounding circumstances, all of which are ever present with direct coal firing. These points are all familiar to all lime burners who have had years of experience in the burning of coal in their kilns.

It is now practically conceded by the largest operators and those so situated as to have the best information on the subject that the final solution of every lime burning problem and economy will be found in producer gas firing, and the particular type of installation or application is the only point left to be considered.

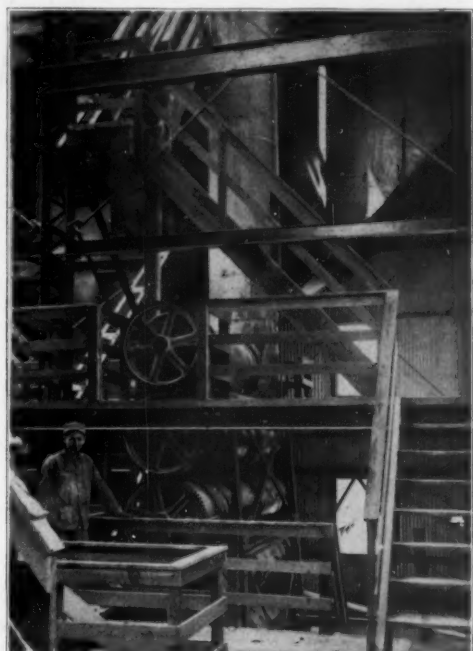
The pioneer lime manufacturer to introduce producer gas in his plant is A. H. Lauman, of Pittsburgh. His observation and study of the use of producer gas in the great steel industry doubtless convinced him of the merits and economies of the gas firing methods as opposed to the cruder forms of burning coal. He has built and successfully and profitably operated several lime plants equipped with gas producers for burning the lime. The National Mortar & Supply Co., of which Mr. Lauman is president and the responsible actuary, has recently completed at Gibsonburg, Ohio, one of the greatest lime burning and hydrate mills ever built. All of the kilns of the original plant, as well as those of the new, are fired with producer gas—in fact, no other method of firing was ever considered in connection with the construction of either plant.

The gas producers and installation for these kilns was supplied by the Duff Patents Co., of Pittsburgh, under the

personal supervision of W. C. Bradley, gas expert, inventor and patentee of many gas application devices. For many years Mr. Bradley has worked with Mr. Lauman in order to work out the niceties of the application of gas to lime burning, and both, each a finished man in his particular line, are now convinced that Mr. Bradley's use of the Duff Patents Co.'s devices is close enough to perfection to call for no further quest.

The Duff Patents Co. has made very satisfactory installations of producer gas outfits for the following well known and successful lime manufacturing concerns: LaGarde Lime & Stone Co., LaGarde, Ala.; Ohio & Western Lime Co., Gibsonburg, Ohio; Knickerbocker Lime Co., Philadelphia, Pa.; Dominion Lime Co., Lime Ridge, Quebec, and Swanton Lime Co., Swanton, Vt.

There are still in the lime industry quite a percentage of men who are averse to innovations of every kind, particularly such as deal with such a



THE BIG KRITZER HYDRATOR IN THE MITCHELL MILL.

was a kodakist there, but the films went wrong, as they usually do when some important historical record is to be made, and that is all that prevents a picture of Mr. McNulty caught in the act of starting the movement of his tonnage of Mitchell hydrate.

George L. Hird was at Mitchell on "opening day," as was Charles C. Kritzer, dean of the hydrating branch of the lime industry, and our photo artist caught them for you to see. Chemist and engineer has given more than half a year to the perfecting of every detail of the new mill, and has grown quite as enthusiastic over lime as he ever was about cement, in which field his achievements are already well known and recognized.

Mitchell hydrated lime in the able hands that are responsible for its introduction will give one more proof of the commercial value of hydrated lime.

Andrews & Co., a Norfolk, Va., concern, is preparing to erect and operate near New Bern a plant to manufacture lime from the oyster shell rocks which are to be found in abundance a few miles above the city. The object of the company is to take the oyster shell rocks, refine them and to turn them into lime.

supposedly mysterious substance as gas. Some of them can never realize that all combustion is a violent chemical action in which several invisible gases are at work, breaking down the organic structure of the material coal, and with the heat of the operation driving another gas out of their limerock so as to leave the lime behind in the kiln as the product of their plants.

But the rapid development of the lime burning activities of but yesterday as compared with the magnificent industry of the present time demon-

strates that it has been worth while for the leaders of opinion to put their convictions into practice. Gas firing has proved successful and economical in all of the extensive installations just mentioned, and without doubt there will be more of them in rapid succession until the major part of all the lime produced will come from gas-fired kilns.

W. C. Bradley, of the Duff Patents Co., has studied the particular requirements of the application of producer gas to the limekiln and has earned success with the endorsement of his patrons.

## Wisconsin Lime Burners View Starting of Schmatolla Gas-Fired Kilns.

May 13 was the red-letter day for the lime people of Wisconsin. It was the occasion of the formal starting of a battery of Schmatolla gas-fire limekilns at the plant of the Standard Lime & Stone Co. at Knowles, Dodge county, which have their general offices in the city of Fond du Lac. E. H. Lyons, president, and W. A. Titus, secretary of the company, were the hosts. The guests consisted of O. W. Robertson, president Union Lime Co., Milwaukee; R. C. Brown, secretary Union Lime Co., Milwaukee; Charles Weiler, manager Union Lime Co., Milwaukee; Aug. Tews, president Milwaukee Falls Lime Co., Grafton, Wis.; J. J. O'Laughlin, manager Waukesha Lime & Stone Co., Waukesha; Adolph Loeffler, secretary Wisconsin Lime & Cement Co., Chicago; Phil. W. Kraemer, owner Mace Lime Co., Rockfield, Wis.; James Fryer, secretary Illinois Lime Co., Chicago; Joseph Hock, manager Wisconsin Lime & Cement Co., Chicago; William and George Nast, Nast Bros. Lime & Stone Co., Marblehead; Ernest Groth, owner Queen City Lime Co., Cedarburg; B. Brennan, manager Valders Lime & Stone Co., Valders; Emil Ruedebusch, White Lime Works, Mayville; Theodore Fleischer, manager Sheboygan Lime Co.; W. J. Hay, president Sheboygan Valley Land & Lime Co., Elkhart Lake; W. J. Druecker, of the W. J. Druecker Co., Port Washington; August Nast, Nast Bros., Marblehead; Ray Hart, of the Hart & Page Lime Co., Rockford, Ill.; J. M. Connell, superintendent for the Union Lime Co., Hamilton; Daniel Webster, sales agent for the Fairbanks-Morse Co.

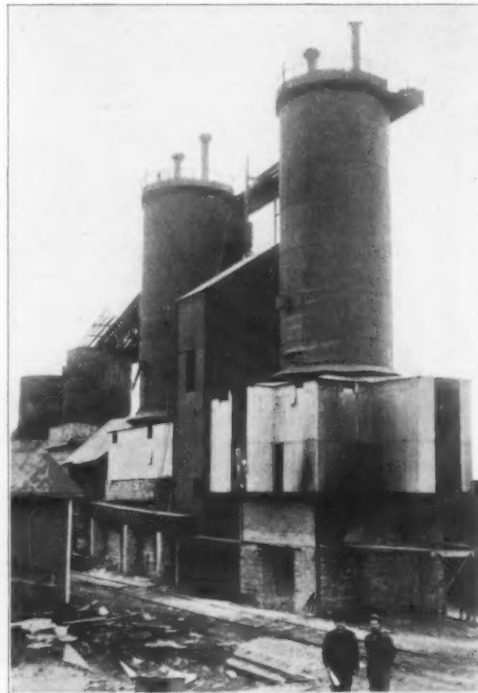
E. Schmatolla, of New York, formerly of Berlin, the well-known authority on gas-fire lime kilns, has spent several months in the construction of the two mammoth kilns and their equivalent, pictured on this page.

The Standard Lime & Stone Co. was the first concern in Wisconsin to install a gas-burning lime kiln, and this plant was completed last fall and has been in continuous operation since that time. The installation consists of a new kiln, having a capacity of 400 barrels a day, and the reconstruction of an old kiln with a gas producer between the two kilns, as can be recognized from our illustration. The gas producer is 8 feet in width, 22 feet long and 15 feet high, and coal bunkers are located over the producer having a capacity of 60 tons, the coal being elevated to the bunker from a pit under the railroad tracks after being deposited in the pit from bottom dump cars. The producer is supplied with automatic coal feed by means of four openings at the top.

The installation is in every way a success from actual experiments extending over a period of eight months. The manager of the Standard Lime & Stone Co. estimates that the saving by the use of burning with producer gas amounts to no less than ten cents a barrel net to the manufacturer. The plant at Knowles had been operated for many years, using wood exclusively for fuel, so that the settled opinion of local lime men had been that wood was the only possible fuel to use for successful lime burning. The depletion of the forests of Wisconsin has forced the lime manufacturers to look to another and better, if not more econom-

ical method of burning lime, and while there has been a great deal of discussion and study of the subject, this is the first practical demonstration of a successful departure from the old method of lime burning practice.

E. H. Lyons, president of the Standard Lime & Stone Co., remarked: "It looks to us to be good



NEW SCHMATOLLA KILNS OF THE STANDARD LIME AND STONE CO.

economy to use coal as fuel, for the reason that the manufacturer is not compelled to stock up heavily with fuel and is therefore not forced to have a great amount of money invested at one time. Within a few years the number of manufacturers engaged in the lime business has created a great demand for fuel wood, and by reason of this competition the manufacturers have been compelled to allow the shipment of green, wet and heavy wood, which added very largely to the freight. Besides having thousands of cords of wood standing in our yard and paying interest on our money invested, it is also necessary to pay a higher rate of insurance. I believe that the installation of gas producers will make for economy and efficiency so that they will displace wood as a fuel for burning lime entirely."

Mr. Schmatolla is an indefatigable worker and a combustion engineer of world-wide reputation. Since coming to the United States in 1912 he has confined his activities almost entirely to the field of the lime industry, for the reason that he has already achieved signal successes abroad in this particular line and the need for the improvement would seem to be most apparent in the lime industry. Mr. Schmatolla does not confine his opera-

tions to the gasification of coal by any means, but is prepared to show producer gas results where the original fuel substance may be lignite, saw-mill refuse, or almost any kind of organic matter.

A number of the prominent lime-producing plants of the country have installed Schmatolla outfits, most of them being only partially built upon Mr. Schmatolla's advice, but in a way embodying what is known as the Schmatolla principle. The lime burners assembled at Knowles last week represent practically all of the important factors of the Wisconsin lime contingent. They had a very pleasant junket and dubbed Mr. Schmatolla as the "Lime Professor," because of his pleasant personality and willingness to fully explain the purposes and details of every part of the mechanism that goes to make up the Schmatolla system of gas firing.

## Eastern Lime Reports.

**Agricultural Season Closing With Fair Demand Noted—Plants Generally Running Full Time.**

While the Virginia district is about completing a fairly good spring agricultural lime trade output, says the Lime Service Bureau, Washington, D. C., it is generally noticed that reports received that the spring demand for building lime is not up to that of a year ago. Reference to the bureau's report on trade conditions of May 14, 1913, shows a big demand in building lime with some plants very much oversold for this product in the Virginia district. Virginia manufacturers also reported a scarcity of labor a year ago which condition this year does not seem to prevail. All that can be said of the building lime trade in the Virginia district this season is that only a fair demand exists, which is also the general report on this commodity from other sections of the Eastern territory. It is pleasing to note, however, with few exceptions, that the prices of building products have been well maintained despite the dullness in demand over previous years.

For the past two weeks a better condition of trade is reported in the West Virginia district, with no changes in prices reported. Plants are running the maximum and demand is good.

Most Maryland manufacturers advise that the agricultural season will be about over with them on May 25th or thereabouts. A majority of the plants are running maximum and demand is still reported good. This has been a good agricultural lime season for Maryland manufacturers whose report show a larger output than that of a year ago.

A continued improvement in general demand is shown by the following report from the Pennsylvania district: "General condition of trade, excellent. Orders still coming in faster than plants could possibly supply were it not for reserve stocks. Reserves are pretty nearly exhausted. A few more days will see the bottom of the tanks."

Cox Lime Co., Incorporated, Wilmington, Del., has been organized with a capital stock of \$500,000; to acquire lands of all kinds containing ores, minerals, lime, etc. Incorporators, J. T. Conway, L. A. Brownhill, M. E. Dorsey, all of Wilmington, Del.

O'Neal's Lime Works, Eureka, Ala., is constructing a hydrating plant with a daily capacity of fifty tons of hydrated lime. A batch hydrator has been installed, which has given good satisfaction on the company's high calcium lime, according to C. L. O'Neal, proprietor of the concern. Other machinery includes a Sturtevant rotary crusher, Jeffrey and other transmission machinery, Jeffrey vibrating screens, and Urschel-Bates valve bagging machinery, together with other equipment which it was found necessary to purchase. The plant is well under way and the machinery is being installed.



# CLAY PRODUCTS

## N. P. B. M. A. Board of Directors Holds Meeting.

The board of directors of the National Paving Brick Manufacturers' Association held its regular meeting at the headquarters of the organization in Cleveland, Ohio, May 11, where a number of matters pertinent to the association were discussed, the most important of which were the decision as to the next place of holding the annual meeting and the approval of the report of the committee on specifications.

Buffalo, N. Y., was decided upon as the next annual meeting place, which will afford the delegates ample opportunity to inspect the many miles of brick-paved streets and roadways in that vicinity. The fact, too, that the State of New York is using many millions of paving brick doubtless influenced this decision.

The report of the committee, which was composed of Messrs. C. C. Blair, Eb. Rogers, W. T. Blackburn, H. S. Renkert and W. P. Blair, appointed at the directors' meeting in New Orleans recently, is as follows:

"To the Board of Directors of the National Paving Brick Manufacturers' Association: The undersigned committee, to whom was referred the question of revising our specifications, submits for your consideration the progress they have made.

"It is the sense of this committee that the specifications for city streets and country roads be made one for each, but printed under the same cover, in the preparation of which the committee is agreed that there shall be avoided as much as possible foot notes and explanatory clauses from the publication which shall be made to include these specifications.

"It is likewise the sense of the committee that there be prepared a handbook which will deal exclusively with explanations, reasons and references which relate to and are incidental to the understanding, operation and enforcement of the specifications.

"We have not found our task an easy one and this is not to be wondered at when we recall that there is debatable ground existing with the best qualified engineers of the country.

"We therefore submit to you the progress that we have made in the discharge of this duty as our report of progress thereupon, for the further disposition of this board, its criticism and advice thereupon, as it deems best."

The specifications in detail were found, with very slight changes, to meet with the unanimous approval of the board and all of the members present.

The Francis Vitric Brick Co., Boynton, Okla., has installed new machinery in the last week to increase its capacity and the quality of its output.

The Nelson Brick & Tile Co., of Albert Lea, Minn., has been incorporated. It will make brick and tile and other clay products. The capital authorized is \$50,000. Carl A. Swenson, Edward Olson and Peter Jenson, of Albert Lea, and H. A. Nelson, of Rolfe, Iowa, are the incorporators.

At the first meeting of the Kansas clayworkers, which was recently organized as The Society of Kansas Clay Products Manufacturers, the following officers were elected: President, Erasmus Haworth, Lawrence; vice-president, J. M. Strickler, Cherryvale; recording secretary, Paul Teetor, Lawrence; corresponding secretary, C. A. Noll, Wichita; treasurer, J. J. Amos, Humboldt. The society voted to hold its next meeting at Coffeyville.

The Thermos Brick Co. of California, New York, N. Y., has increased its capital stock from \$10,000 to \$300,000.

The New England Brick Co., Schenectady, N. Y., started up a portion of its plant a few days ago, running one machine at their upper yard. The plant has been shut down since last fall.

Clay Products Corp., Hampton, Va., Thos. D. Robinson, president, has been organized with a capital of \$25,000 to take over brick works formerly operated by R. H. Richardson & Sons; plant on Chickahominy river.

John W. Kitchell, of Rosemond, Ill., has advertised for bids to be opened June 2 for the construction of a road 26 feet wide from the town of Rosemond to the Rosemond cemetery. The road will require 29,000 square yards of vitrified block brick. The cost will be about \$50,000.

The Eastern Brick Co. is the latest concern to organize in Berlin, Conn. The concern will embrace the Merwin Brick Co., the Aetna Co., at Windsor, and the R. O. Clark Co., at East Berlin. R. O. Clark of East Berlin is at the head of the new concern. Mr. Clark was formerly with the Connecticut Brick Exchange at New Britain. Capital stock is \$50,000, 2,000 shares.

In the April 7 issue of ROCK PRODUCTS AND BUILDING MATERIALS an item appeared with reference to the roofing contract for the seven institute buildings being erected at Spokane, Wash., for the feeble minded. It now appears that Ludowici-Celaden Co., of Chicago, with factories at New Lexington, Ohio; Coffeyville, Kan.; Chicago Heights, Ill., and Ludowici, Ga., secured this contract instead of another concern mentioned in the item.

The Arkansas Brick & Manufacturing Co., Little Rock, Ark., are now working in accordance with their usual pace in respect of their supply of pressed brick. During the winter months this company's stock ran rather low and they were unable to supply all the shades. This concern is now accumulating a stock of gray manganese in light and dark shades and are in a position to make prompt shipments. The company sends out samples by parcels post on request.

Under the title "Belden Brick" the Belden Brick Co., Canton, Ohio, has issued a catalogue of pronounced attractiveness, showing the line of face brick manufactured by the company in all its beautiful and glowing colors. The Belden company has been making brick for thirty years and has adopted a policy of making only one kind of brick at each plant. This, they believe, enables them to secure better results and also to handle large contracts without delay.

At the recent annual convention of the Alberta (Canada) Clay Products Manufacturers' Association, held in Edmonton, officers for the ensuing year were elected as follows: President, J. P. Henry, Edmonton; first vice-president, D. V. M. Little, Calgary; second vice-president, J. F. Pollard, Edmonton; third vice-president, R. P. Stewart, Medicine Hat; secretary-treasurer, W. G. Worcester, Calgary; in addition to the above, W. J. Tregillus was elected to the position of Hon. President. It was decided to hold the next annual meeting at Medicine Hat.

## BRICKMAKERS OPPOSE CONVICT LABOR PLANTS.

Paving brick manufacturers in the western Pennsylvania territory, who are members of the Eastern Paving Brick Manufacturers' Association, have announced their opposition to the plan of the states of New York and Ohio to establish convict labor brick yards. New York appropriated \$50,000 for the erection of a paving brick plant at the state reformatory, at Elmira. Ohio plans to operate a plant for the same purpose at Junction City. Paving brick and paving block manufacturers maintain that the operation of such plants takes that much business away from manufacturers who have money invested, and rely on municipal and state road improvement jobs to continue in operation.

## BIG PAVING BRICK CONCERN ORGANIZED.

The National Paving Brick Co., Columbus, Ohio, has been incorporated with a capital stock of \$400,000. The new firm has purchased the plants of the South Zanesville Sewer Pipe & Brick Co. and the Harris brick plant. The two plants are to be taken over at once and work will be started installing improved machinery. They will not be closed down.

It is planned by the organizers of the new company to manufacture paving brick or blocks for streets and highways on a large scale. At a meeting held in Zanesville recently the following were elected directors: E. A. Evans and E. R. Meyer, of Zanesville; F. L. Moores, of the Moores-Coney Co., Cincinnati; William Worthington, C. H. Frederick and J. M. Wilson, of Cincinnati.

## BRICK MEN FIGHT INCREASE.

A score of business men, representing the towns of Altoona, Tyre and Fredonia, Kan., appeared a few days ago before Royal T. McKenna, special examiner for the Interstate Commerce Commission, to testify regarding the brick industry in that section of the country. Examiner McKenna is investigating a proposed plan on the part of the railroads to raise freight rates on brick and paving materials. At the present time the rate is 10 cents per 100 pounds. The proposed increase would make the shipper pay 12½ cents per 100 pounds.

The three Kansas towns depend largely upon the brick industry and there is much opposition to the action contemplated by the railroads. Decision has not been rendered yet.

Kittanning Face Brick Co., Manhattan, N. Y., has been incorporated; capital, \$300,000; W. A. Simpson, Kingston; D. T. Oliver, E. Doyle, New York.

The Industrial Brick Co., Mt. Vernon, Ind.; \$6,000; to manufacture brick, tile, etc.; William Gonnerman, Sr., Mt. Vernon; L. H. Keck, J. Tort-hoffer.

The Vesper Brick & Tile Co., Marshfield, Wis., has recently added a steam dryer to its outfit. Eight thousand feet of steam pipes were installed and now they will be able to make brick rain or shine.

C. E. Brudsch, San Antonio, Texas, has organized a company with a capitalization of \$30,000 and will shortly construct a brick plant on a tract of land near Leming, on the San Antonio, Uvalde & Gulf Railroad, where an excellent clay deposit has been found.



# Sand and Gravel

## Louisville Sand and Gravel in Nominal Demand.

**Stocks Are Accumulating, Though Operations Continue—Work on New Slider Digger Progressing Steadily.**

Louisville, Ky., May 18.—Little change is noted in the condition of the local sand and gravel market. The volume of these materials handled is not up to the normal for this time of the year, according to the reports of the local dealers. All the yards are well stocked though digging operations are continuing with full crews working. The road and street work, and here and there an extensive job, continue to demand gravel and sand in large quantities, though, as in other lines, the orders for the most part are individually small. Digging operations were not handicapped this year by excessively high waters and this spring finds the dealers with larger stocks in their yards and bins than ordinarily. Unless demand improves, as some of the companies appear to think it will, several of them may have to restrict their digging operations.

What is described as rather a slump by John M. Settle, secretary and treasurer of the Ohio River Sand Co., is not accounted for by him, unless it is due to the more or less unidentified causes which have produced a sort of business depression in this part of the country at least. Business with this company is not up to the average. The Ohio company has added to its hauling equipment a six-ton Garford gasoline truck which "makes the dirt fly" when it is turned loose on deliveries.

A fair business is noted by Joe Lloyd, general manager of the E. T. Slider Co., though not up to expectations by any means. Work on the new digger which the company hopes to get into operation in the next 8 or 10 weeks is progressing steadily. The float is just about in shape now for the placing on it of the elaborate machinery which will be used and the machinery is on the ground ready for installation. The new digger will be out of the ordinary for this section of the country where most of them are operated on the pump plan. The Slider digger, which will have a maximum capacity of 2,000 yards a day, will use the clam-shell shovel. This will drop the load into a hopper, whence it will be conveyed to the grinder, where it will be washed by streams of water thrown directly upon it, after which the screening process will take place. The digger, when completed, it is said, will be the largest in this part of the country.

Lots of orders for street and sidewalk work are helping business with the Nugent Sand Co., according to J. B. Nugent, vice president, who said that the volume of business was up to expectations. The demand from building operations, however, to date is slight.

## Busy Days for Sand Diggers in Pittsburgh Vicinity.

Pittsburgh, Pa., May 18.—Sand diggers on the local rivers are nearly all busy. A large amount of sand is being placed for use in erecting the immense buildings going up in the downtown district. This, together with government demands for sand along the rivers, has made a fairly good trade. Business with the retailers is not so brisk as it should be at this season and prices are being hammered very hard.

The Venango Sand & Stone Co. has been or-

ganized here by H. Lee Reynolds, John W. Thompson and Charles F. Patterson, of Venango county, Pennsylvania.

The Burdell Silica Co. has sold its property in Franklin township, near New Philadelphia, Ohio, to Gen. John W. S. Coxey, now at the head of Coxey's Army, which has completed its journey to Washington. The company owns several sand pits. Coxey made a fortune from the sand and stone business near Massillon, Ohio, and his son is continuing at the head of the business.

At Mercer, Pa., the following men have organized the Leesburg Sand Co.: William H. Harrison, William G. Uber and William J. Uber.

The new sand digger known as the "Monarch," built by M. P. Packard at Dravosburg, Pa., was launched last week. It is the largest sand digger on the local rivers by far and is the only one of its kind in the country. A trial test of the digger was made on the Monongahela river near the shipyards before it started out on its maiden trip and was entirely successful.

Captain Downie's sand digger, which was formerly the Pomeroy wharf boat and which has a capacity of about 400 yards daily, is busy in the Huntington district at present, and will also be employed extensively near Parkersburg this summer.

## Ruling Made Is Important.

**It Includes a City's Environs in Transportation Station.**

In the case brought by the Washed Sand & Gravel Co., of Minneapolis, against the imposition of the distance schedules for a five-mile haul on its products from the company's plant, 700 feet outside the city limits on the Great Northern tracks, to points within the city, relief was granted by the state railroad and warehouse commission from the Cashman distance tariff law. The charge under the Cashman rates was \$6.40 for a car of 40,000 pounds, while competitors just within the corporate limits have a switching rate on other lines of \$4 a car.

### Question to Determine.

The commission said the question to be determined is whether the distance rates shall be applied to what is known as switching or drayage movements, and whether the rate charged for such a movement shall become the basis for all hauls for the same distance for the same class of traffic upon all lines within the state.

"The distance tariff act deals with transportation," says the order, "or 'line haul' rates and with switching charges. This distinction clearly emphasizes the fact that the carrier may make different rates for switching movements than it charges for a line haul."

### Would Be Unreasonable.

For the first time in the Minnesota rate controversies a definition of the designation "point" as indicating a railroad station is made in the order it holds that a "point" includes not only a depot but also side tracks and other incidents to transportation.

"It would be unreasonable to hold that a station must be confined to the geographical limits of a municipality," says the order, "because it frequently happens that the facilities for switching and handling traffic extend beyond the dividing line."

## Anticipate Brisk Demand.

**Kansas Sand and Gravel Concerns Will Supply Much Material for Railroad and Municipal Improvements.**

Kansas City, Mo., May 18.—The Kansas City Sand Co., which began business last November, and which recently put plant No. 2 into operation, also is extending its delivery and storage facilities. Two new yards have been opened by the company, one being at Twelfth and Jackson and the other at Twentieth and Vine streets. Air line service will be a feature of the latter, a viaduct having been constructed to handle the sand. About 200 carloads will be stored at this yard in anticipation of a brisk demand as soon as the wheat crop is assured rather than prospective. Six or seven carloads are being laid away daily, and the company expects to be well fixed for midsummer business. At the same time, it is not resting on its oars to any extent. Six thousand tons will be delivered for the new Chicago, Milwaukee & St. Paul Railroad's elevator, and the Chicago, Burlington & Quincy's new grain storage plant will require about the same amount. The company is operating night shifts at both plants.

One of the new companies in this territory is the Keys Sand Co., of which J. W. Keys is the head. Mr. Keys has begun work on the Kaw river, utilizing the new process of washing now in vogue hereabouts. He is selling much to contractors handling municipal work in both Kansas Cities and is disposing of a fair-sized output without any serious difficulty.

E. E. Smith, operating a sand digging outfit on the Arkansas river near Dodge City, Kan., lost his plant in the recent flood on that and other rivers in Arkansas and Oklahoma. The equipment was swept away in a fierce current. Other sand companies on the Arkansas and Cimarron rivers sustained losses of varying proportions, failing to anticipate the high waters, which took down a number of bridges and created other damage. Mr. Smith, with his partner, Samuel Baggle, expects to resume operations as soon as a new plant has been secured.

## COMPILES SAND AND GRAVEL DATA.

The Security Cement & Lime Co., Hagerstown, Md., has compiled data under the title, "The Selection of Sand for Concrete," which will be of great interest to those who find difficulty in determining the qualities of different sands. The pamphlet is an abstract of current technical literature published in the interest of cement users. Especial emphasis is laid on the proper proportioning of the sand aggregate in all manner of concrete construction.

The booklet is known as "Concrete Pointers No. 1," and additional data on the properties of aggregates for concrete are being collected and will appear in a future number of "Concrete Pointers," issued by the Security company. Such subjects as sharpness, loam or clay, vegetable or organic impurities, mica, coal dust, coarseness of sand, percentage of voids, taking sample at bank, taking sample from piles at bank, taking sample on the job, general cautions, etc., are treated in brief in the booklet.

Granite Sand & Gravel Co., Indianapolis, Ind., has been incorporated for \$40,000; to deal in sand and gravel. J. F. Barnhill, Indianapolis; W. K. Miller, G. V. Miller.

The market place of the building material industry. Employment department, machinery wanted and for sale, etc. If your wants are not answered in this page, write a letter to this office.

**THE FRANCIS PUBLISHING CO.**  
537 S. Dearborn Street Chicago, Illinois

# :: THE :: BOURSE

Advertisements will be inserted in this section at the following rates:

For one insertion.....35 cents a line  
For two insertions.....45 cents a line  
For three insertions.....60 cents a line

Eight words of ordinary length make one line.  
Headings counts as two lines.  
No display except the headings can be admitted.

Remittances should accompany the order. No extra charges for copy of paper containing the advertisement.

## EMPLOYMENT WANTED

**WANTED**—Job as locomotive crane man. Can handle the Browning and McMyler. Several years' experience. Prefer Pacific coast states. Can give the best of references.  
H. S. ALEXANDER,  
care S. O. Co., Sec. 16, Tank Farm, Taft, Cal.

**WANTED**—Position as superintendent of lime manufacturing plant. Eight years' experience on all makes of kilns. Thoroughly conversant with quarry and crushers. Am capable of taking charge of any plant and getting best results. Employed at present. Address Box 985, care ROCK PRODUCTS & BUILDING MATERIALS.

**WANTED**—Position as quarry superintendent; 25 years' experience in construction and operation of crushing plants. Would operate on percentage basis. Best of references. Address Box 985, care ROCK PRODUCTS & BUILDING MATERIALS.

## POSITION AS SUPERINTENDENT.

Position wanted as superintendent of lime works by a hustler of fifteen years' experience, capable of taking full charge of plant, including quarry, and can be depended on at all times to keep things up to the minute and in working order. Can furnish best of references from former employers and produce results. I am thoroughly familiar with Gas Producer and direct fire kilns. Also Hydrate Mill and Stone Crusher. Address "Results," care ROCK PRODUCTS & BUILDING MATERIALS.

**WANTED**—Position as superintendent of quarry. Thoroughly familiar with "big blast shots." Fourteen years' experience. Address "Live Wire," care ROCK PRODUCTS & BUILDING MATERIALS.

## EMPLOYEES WANTED

### GENERAL SUPERINTENDENT WANTED.

**WANTED**—For a quarry in the South having a capacity of 500 yards crushed rock daily, a general superintendent, with practical quarry experience and with ability as sales manager. Apply with references to "CRUSHER," care ROCK PRODUCTS & BUILDING MATERIALS.

Previous letters addressed to this number were destroyed by fire. Please send copies.

An Opportunity For

## BIG RETURNS

A partner is being sought for, in a new treatment which has been patented in this and foreign countries, for the manufacture of artificial stone, bonded by burning, out of waste material. The necessary machines are nearly completed. Also the patent can be sold and the license granted. Only interested parties please answer, care R. P. 1729, to the

**TONINDUSTRIE-ZEITUNG, BERLIN, N. W. GERMANY.**  
"A Strong Start is Half the Battle."

## G. P. GRIMSLEY, Ph. D.

### MINING AND CONSULTING GEOLOGIST

Formerly Asst. State Geologist W. Va.; Formerly Geologist on Ohio, Michigan and Kansas Geological Surveys; Ex-Manager National Limestone Company. Consulting Geologist National Limestone Company.

Examination, Reports, Consultation on development  
Limestone, Clay, Gypsum and Coal.

Room 1105 Wyandotte Bld'g. : Columbus, Ohio

## WEBSTER J. LEWIS

### GEOLOGICAL ENGINEER

EXAMINATIONS AND REPORTS  
PROPERTIES AND RAW MATERIALS

HOTEL SAN MARCOS

CHANDLER, ARIZ

HIGH GRADE

SILICA

**CLAY AND SAND**  
CRUDE-DRIED-GROUND CRUDE-DRIED-SCREENED

**GEO. C. CROSSLEY**

CROSSLEY STATION

TOMS RIVER, N. J.

## CARS & LOCOMOTIVES FOR SALE

### CARS.

156—5 yard 36-inch gauge all steel Peteler 2-way dump cars, built 1910 and '11. Thoroughly overhauled. Practically good as new. The best dump cars we have ever seen. We are putting these cars on the market at bargain prices. Write us for further information.  
Eight 36-inch gauge double-truck flat cars.

### LOCOMOTIVES.

Eleven—12x16 Porter four-wheel saddle-tank 36-inch gauge locomotives, built 1910 and '11, and used until the end of the season 1911; practically new.  
One—11x16 Pittsburg four-wheel saddle tank, 36-inch gauge.

Thirty-five 9x14 Porter four-wheel saddle tanks, 36-inch gauge. Most of these have steel cabs and were built since 1902.

### STEAM SHOVELS.

Three—Marion Model 60 steam shovels, in excellent condition; ready for immediate shipment.

One—Bucyrus Model 65, with Model 70 front and april. Thoroughly overhauled.

Two—Marion Model G shovels, in first-class condition. Also big lot steam shovel repair parts, and other contractors' equipment.

MINNESOTA EQUIPMENT CO., Hibbing, Minn.

## PLANTS FOR SALE

**FOR SALE**—Small sand and gravel plant, practically new. Excellent shipping facilities and railroad connections. Established and growing business. Good margin of profit. Needs personal supervision. Owner has other interests. Will sell right. Address Box 991, care ROCK PRODUCTS & BUILDING MATERIALS.

**FOR SALE**—Fully equipped high calcium limestone property. Three patent kilns, new crusher, electrical equipment, eastern Pennsylvania, good Market, chemical and fluxing trade. Good opportunity for the right man. Address Box 968, care ROCK PRODUCTS.

## MACHINERY WANTED

**WANTED**—One second-hand Broughton 2000 lb. Mixer. Address Box 989, care ROCK PRODUCTS AND BUILDING MATERIALS.

**WANTED**—Rock grinder or pulverizer capable of reducing 2" to 5" hard limestone to pass through a 1/4" screen, minimum 5 tons per hour.  
BITTINGER & ROHRBAUGH, Hanover, Pa.

Paper Bags  
of  
Quality.

For All Purposes

The Jaite Company

Union, Ohio

Strongest, Most Flexible

## FOR SALE

## PLANT and EQUIPMENT

Including Locomotives, Gondolas, Derricks, Hoisting Engines, Boilers, Concrete Mixers, Rock Drills, Buckets, Pumps, Engines, Elevators, Conveyors, and Camp Equipment.

## ALABAMA POWER COMPANY

Engineering Department,

BIRMINGHAM, ALABAMA

## BUSINESS OPPORTUNITIES

**FOR SALE**—Choice tract of vacant, in best residence ward in progressive Wisconsin city. Contiguous to three streets (improvements in), and now ripe for building cement-poured houses and apartments from material on the premises. Will sell all or one-half interest in this profitable venture to right party experienced in this kind of construction. Address for further particulars Box 994, care ROCK PRODUCTS & BUILDING MATERIALS.

**FOR SALE**—50 acres sand on D. L. & W. R. R., at Fox Hill, N. J., Morris County. If interested in buying same write G. VANHORN,  
311 Mt. Pleasant Ave., Newark, N. J.

## CLAYWORKERS CASTINGS GREY IRON.

Foundry Castings—Prompt delivery. WM. E. DEE CO., Foundries & Machine Shops, Chicago and Harvey, Ill. All kinds of clay-workers castings, dies, dryer cars, grate bars, etc. Main office, 30 N. LaSalle St., Chicago, Ill.

## AGRICULTURAL LIME AND CRUSHED STONE QUARRY FOR SALE.

A well-developed lime and crushed stone quarry in Eastern Tennessee, situated on the Southern Railway, of approximately 43 acres, is now offered for sale at a very attractive price on reasonable terms. A big market exists in the territory for agricultural lime. Modern road building is now going rapidly forward, which will make a good outlet for that product. Full information and details obtained by referring to file 47833 and writing M. V. Richards, Land and Industrial Agent, Room 371 Southern Railway, Washington, D. C.

## MACHINERY FOR SALE

**FOR SALE**—One Kelly-Springfield Road Roller, standard style, three wheels. In good condition. A bargain.  
One Steam Hoist, 1 1/2 yd. capacity.  
Five 1 1/2 yd. Steel Quarry Cars.  
100 tons 25 lb. T. Rails.  
Two 4" Centrifugal Pumps.  
Two 6" Centrifugal Pumps.  
One 8" Centrifugal Pump.  
Three Ingersoll-Rand Steam Drills.  
One 25 h.p. firebox Boiler.  
Four 2 yd. Troy Bottom Dump Wagons.  
THE LIMA STONE CO., Lima, Ohio.

Plaster Mixer, Hair Picker, Wood Fiber Machine; used but little; great bargain.  
LOCK BOX 571, El Paso, TEXAS.

**FOR SALE**—An American Hammer Mill, second-hand, in good condition, at a bargain. Address Box 981, care ROCK PRODUCTS & BUILDING MATERIALS.

## BARGAINS

### ROAD ROLLERS

2 1/2 ton tandem.  
3 ton tandem.  
5 ton tandem.

Just purchased here in Chicago.

### BUCKETS

1 yd. Haiss Clam Shell.  
1 yd. Williams Clam Shell.  
1 yd. Hayward Class "E" Clam Shell.  
1 1/2 yd. Hayward Class "E" Clam Shell.  
15 cu. ft. Hayward Orange Peel.  
1 yd. Hayward Orange Peel.  
1 1/2 yd. Hayward Orange Peel.

### DERRICKS

2—Stiff Leg, 50' Booms.  
2—Stiff Leg, 60' Booms.  
1—Guy, 70' Boom.

### CRUSHERS

We have never had a larger stock of crushers to offer, nor lower prices.

If you contemplate installing additional machinery—Relaying Rail, Dump Cars, Elevators, Screens, etc., give us an opportunity to submit quotations. We have NEVER HAD BETTER BARGAINS!

Send for 52 page booklet of second-hand machinery.

**WILLIS SHAW MACHINERY CO.**  
New York Life Bldg. CHICAGO, ILL.



# Sand-Lime Brick

## Sand-Lime Brick Production

The sand-lime brick industry has been established in the United States since 1901, when the first plant was started at Michigan City, Ind. Since that time it has passed through the various stages of a new industry. In the beginning it suffered severely from the "boomer," on whose glittering promises to make brick for a few dollars a thousand that would sell in competition with high-grade face clay brick, plants were established for the manu-

facture of sand-lime brick, without regard to market, transportation facilities, or even a supply of suitable material. Some plants constructed under these conditions never even attempted to market their product. Then came the natural reaction when the number of plants and the value of the product decreased even more rapidly than commercial conditions would have seemed to warrant. Since that stage, within the last few years, the industry seems to have become firmly established and is now showing a reasonable growth.

*Value of production of sand-lime brick in the United States, 1903-1913.*

Year.	Number of operating firms reporting.	Value of product.	Year.	Number of operating firms reporting.	Value of product.
1903.....	16	\$155,040	1909.....	74	\$1,150,580
1904.....	57	463,128	1910.....	76	1,169,153
1905.....	84	972,064	1911.....	66	897,664
1906.....	87	1,170,005	1912.....	71	1,200,223
1907.....	94	1,225,769	1913.....	68	1,238,325
1908.....	87	1,029,699			

facture of sand-lime brick, without regard to market, transportation facilities, or even a supply of suitable material. Some plants constructed under these conditions never even attempted to market their product. Then came the natural reaction when the number of plants and the value of the product decreased even more rapidly than commercial conditions would have seemed to warrant. Since that stage, within the last few years, the industry seems to have become firmly established and is now showing a reasonable growth.

In common with most new building materials, sand-lime brick has had to overcome prejudice in the minds of some architects and builders. This prejudice was sometimes justified by the poor brick resulting from ignorance or lack of technical skill. The plants making this poor material have either gone out of business or have improved their product, so that today at many places sand-lime brick is successfully meeting the competition of clay building brick.

The condition of the sand-lime brick industry in the United States in 1913 was on the whole encouraging. The number of active operators decreased, and four states that reported production for 1912, dropped out of the list of producers in 1913. On the other hand, the quantity of brick reported and its value increased, and the average value also of output per plant increased from \$16,905 in 1912 to \$18,211 in 1913. When this material was first produced in the United States, it was thought that many applications of it would be made, such as wall coping, ornamental pieces for garden and lawn, window sills, trimmings, lintels, columns, and capitals. None of these have been made extensively, although some attempts were made to produce them. The tendency has been, however, to eliminate these special forms and uses and to make only building brick. For 1913 only the production of building brick was reported to the U. S. Geological Survey.

The sand-lime brick industry showed progress in 1913 over 1912. In 1913 the value of the output reported attained its maximum, \$1,238,325, or \$12,556 more than in 1907, the year of maximum value prior to 1913. Compared with 1912, this was an increase of \$38,102, or 3.17 per cent. In 1912 the

The table below shows that the value of the output in 1913 increased \$38,102, or 3.17 per cent. The number of states in which production was reported in 1913 was 24, a decrease of 4 from 1912—Connecticut, Maryland, Mississippi, and Montana dropping out as producers. In order to avoid disclosing individual operations, it has been necessary to group the output of certain states together. Michigan continued to be the leading state, the value of its product constituting 25.94 per cent of the total value of all sand-lime brick in 1913, and 26.39 per cent of the total in 1912. New York was second in 1913, as in 1912, reporting 10.98 per cent in 1913 and 10.72 per cent in 1912. Minnesota regained third place, from which it was displaced by Florida in 1912, and Florida was fourth.

Of the states for which totals are given, eight—California, Massachusetts, Michigan, Minnesota, New Jersey, New York, Pennsylvania, and Wisconsin—showed increase in 1913, and three—Florida, Idaho, and Indiana—showed decrease. None of these changes were very great, the largest gain being in Pennsylvania—\$36,704, or 99.28 per cent. The largest proportionate gain was in Massachusetts, nearly 150 per cent; the largest decrease was in Florida, \$41,699, or 34.35 per cent.

Michigan had the largest number (12) of operating firms reporting in 1913, an increase of 1 over 1912. California and New York each had 5 operating firms reporting in 1913, the same number as in 1912. No other state had as many as 5 producers in 1913.

The average price per thousand for common sand-lime brick was \$6.27 in 1913, as compared with \$6.46 in 1912 and with \$6.09 in 1911; for front brick it was \$10.61 in 1913, as against \$10.41 in 1912 and \$9.53 in 1911. In 1913 common brick represented 90.32 per cent of the value of all products and front and fancy brick 9.68 per cent. In 1912 common brick constituted 90.64 per cent of the total value and front brick 8.86 per cent.

The new plant of the Winchester Brick Co., located at Winchester, Mass., has begun operations and are turning out a fine grade of sand-lime brick. The plant consists of three American Clay Machinery Co. wet grinding mills, two sixteen-mold rotary presses and other equipment. The power used for operating the plant is electric, the brick being hardened by steam from an independent steam boiler plant. The capacity of this plant will be 50,000 brick per day. The outlook is exceptionally bright for a very successful season.

### Production.

The above table shows the production of sand-lime brick in the United States from 1903 to 1913, inclusive:

This table shows that the value of sand-lime brick marketed and the number of operating plants reporting rose rapidly until 1907. In 1908 there was a decrease, in common with other industries. In 1909 and 1910 there were slight increases. In 1911 the lowest value was reached (\$897,664) since 1904. In 1912 and 1913 there were gains in value, the total for 1913 being the maximum, though the number of active firms reporting was three less than in 1912.

The domestic production of sand-lime brick in 1913 by states and kinds is shown in the following table:

*Production of sand-lime brick in the United States in 1913, by States and kinds.*

State.	Number of active firms reporting.	Common brick.		Front brick.		Total value.
		Quantity (thousands).	Value.	Quantity (thousands).	Value.	
California.....	5	1,237	\$8,414	2,267	\$30,425	\$38,839
Colorado, Iowa, and Nebraska...	4	1,336	10,260	288	3,458	13,718
Florida.....	4	12,621	72,665	750	7,014	79,679
Idaho.....	3	1,234	13,839	99	2,640	16,479
Indiana.....	4	12,091	58,150	40	400	58,550
Kansas, Oklahoma, and Texas...	4	7,418	66,940	300	3,421	70,361
Massachusetts.....	3	5,315	34,348	607	7,801	42,149
Michigan.....	12	49,373	315,882	692	5,363	321,245
Minnesota.....	4	23,293	127,794	120	1,370	129,164
New Jersey.....	4	415	2,115	1,706	13,642	15,757
New York.....	5	21,251	133,303	339	2,710	136,013
North Dakota and South Dakota...	3	3,942	30,364			30,364
Pennsylvania.....	3	11,984	73,674			73,674
Wisconsin.....	4	12,302	75,130	222	2,434	77,564
Other States <sup>b</sup> .....	6	14,540	95,524	3,886	39,245	134,769
Total.....	68	178,352	1,118,402	11,307	119,923	1,238,325
Average price per M.....			6.27		10.61	

<sup>a</sup> Includes fancy brick.

<sup>b</sup> Includes the District of Columbia, Georgia, Kentucky, Ohio, and Washington.

**"BERKELEY"**  
Hydrated  
**LIME**



ASK YOUR  
DEALER



**"SECURITY"**  
PORTLAND  
CEMENT

Security Cement & Lime Co.  
Main Offices, Hagerstown, Md.



SALES OFFICE:  
Liggett Bldg., St. Louis



SALES OFFICE:  
Long Bldg., Kansas City

THE  
**Standard  
Brands**

OF  
**Portland Cement**  
Lightest in Color  
Highest Tensile Strength

**ALWAYS UNIFORM**

Always the same high quality. Prompt shipment guaranteed at all times and made possible, as each mill is located within switching limits of the two greatest railroad centers of the West. You are assured of your orders being promptly filled.

MANUFACTURED BY

**Union Sand & Material Co.**

ST. LOUIS  
Liggett Bldg.

KANSAS CITY  
Long Bldg.

MEMPHIS  
Tenn. Trust Bldg.

**"Giant"**  
Plaster  
Board



The HIGHEST GRADE Plaster Board made. Substitute for lath or wood sheathing. Impervious to heat or cold. Fire resisting. Vermin proof. Sound deadening. Does not buckle. Quick drying. Time saving. Size of board, 32"x36".

The "Giant" Plaster Board Co.  
Bridgeport, Conn.

**WETHRPRUFE**

Open  
Mouth



Bates  
Valve

We make these bags in one-fifth barrel size cheap enough to use and strong

enough to carry seventy-six lbs. cement to destination. A SK FOR THEM.

**WATERPROOF**

An Extra Heavy, Extra Strong  
**WATERPROOF PAPER BAG**  
For Cement, Plaster, Lime, Etc.

**West Jersey Bag Co.**  
Camden, N. J.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



# STANDARD STRENGTH      UNIFORM QUALITY PROMPT SERVICE



## THE NATIONAL RETARDER COMPANY

—MILLS AT—

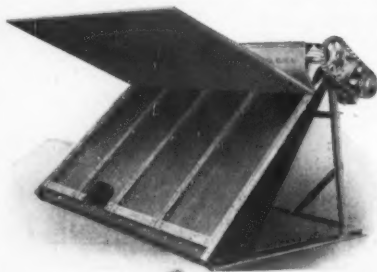
PORT CLINTON, OHIO.

WEBSTER CITY, IOWA

BRANCH OFFICE: TOLEDO, OHIO

### National Screen Separator

THE LEADING SCREEN IN



**Efficiency  
Durability  
Simplicity**

Write for Descriptive  
Literature to

National Engineering Co.

848 Otis Bldg., 10 S. LaSalle St.,  
Chicago

Phone Franklin 3071

### WHITEHALL

PORTLAND CEMENT

Whitehall Cement  
Manufacturing Co.

1722 Land Title Bldg.  
Philadelphia



### Saylor's Portland Cement

Oldest American Portland

Used by the United States Government since 1876

COPLAY CEMENT MANUFACTURING CO.

SALES OFFICES:

Fifth Avenue Building,  
NEW YORK CITY

1106 Land Title Bldg.,  
PHILADELPHIA

ROBERT W. HUNT      JNO. J. CONE      JAS. C. HALLSTED      D. W. McNAUGHER

**ROBERT W. HUNT & CO., ENGINEERS**  
**INSPECTION CEMENT & REINFORCING STEEL**  
CHEMICAL AND PHYSICAL TESTING

Office and Laboratories  
Chicago, Montreal      New York      San Francisco      Pittsburgh      Toronto      St. Louis      Mexico City      London      Seattle

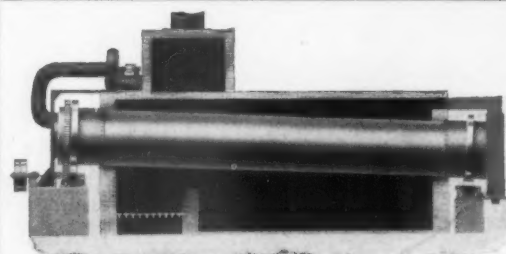
**Lime Kilns**  
**Hydrated Lime Plants**  
**Portland Cement Plants**

### RICHARD K. MEADE

Chemical, Mechanical and Industrial  
Engineer

202 N. Calvert Street, BALTIMORE, MD.

Cement Tests, Chemical Analyses  
Reports on Mineral Properties



We make the  
largest variety  
of  
**MECHANICAL  
DRYERS**

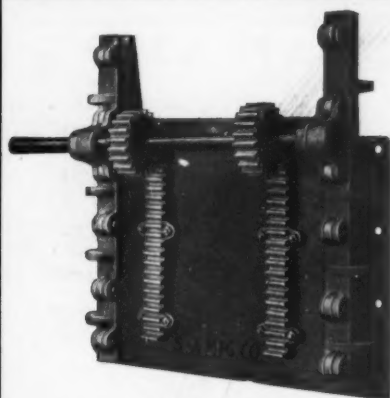
Write for  
Catalog  
No. 16

We are also Engineers and Manufacturers of

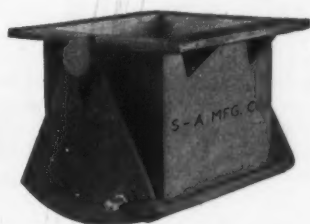
Car Hauls	Feeders
Crushers and Pulverizers	Mining Machinery
Drop Forged Chain	Mixing Machinery
Elevators and Conveyors	Sand Plants
Soft Mud Brick Machinery	Screens

**THE C. O. BARTLETT & SNOW CO., Cleveland, Ohio**

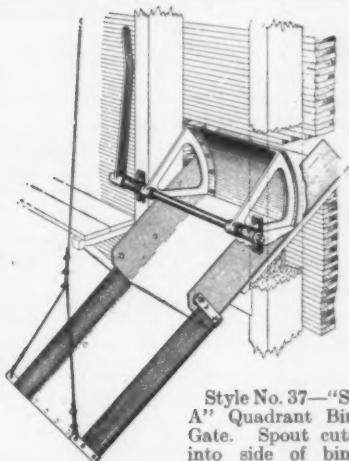
Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



Style No. 11-D—Roller bearing slide gate for bottom discharge bins.



Style No. 53—'S-A' Simplex Cut-Off Gate. For bin bottoms. A heavy and substantial gate, easily operated. May be used with coarse and lump material. For sand, gravel and stone bins.



Style No. 37—'S-A' Quadrant Bin Gate. Spout cuts into side of bin. The standard gate for sand and gravel plants. It is practically self-closing and is easily opened as the gate operates at right angles to the flow of material.



Style No. 73—'S-A' Duplex Valve. Easily operated. Self-closing. Always delivers centrally. Flow of material may be easily regulated.

## "S-A" Bin Gates & Valves

Our line of gates and valves is very complete enabling us to adapt them to any requirements. A few shown here are merely representative. We also manufacture a large line of automatic feeders for use in gradually drawing fine or lump material from a bin.

We are always glad to study the conditions and to recommend the gate or feeder best adapted to any special requirements.

(Our Engineering Board is at your service—we will offer preliminary plans and specifications on any propositions in our line without charge.)

## Stephens-Adamson Mfg. Co.

AURORA, ILLINOIS

NEW YORK	CHICAGO	PITTSBURGH	ST. LOUIS
BOSTON	LOS ANGELES	SALT LAKE CITY	TORONTO

We design and equip Rock Crushing Plants, Sand and Gravel Washing Plants, Screening Plants, Storage Systems.

We manufacture Conveyors, Elevators, Transmission Equipment, Gates, Feeders, Car Pullers, Etc.

# THE SCHAFFER POIDOMETER

## DESCRIPTION

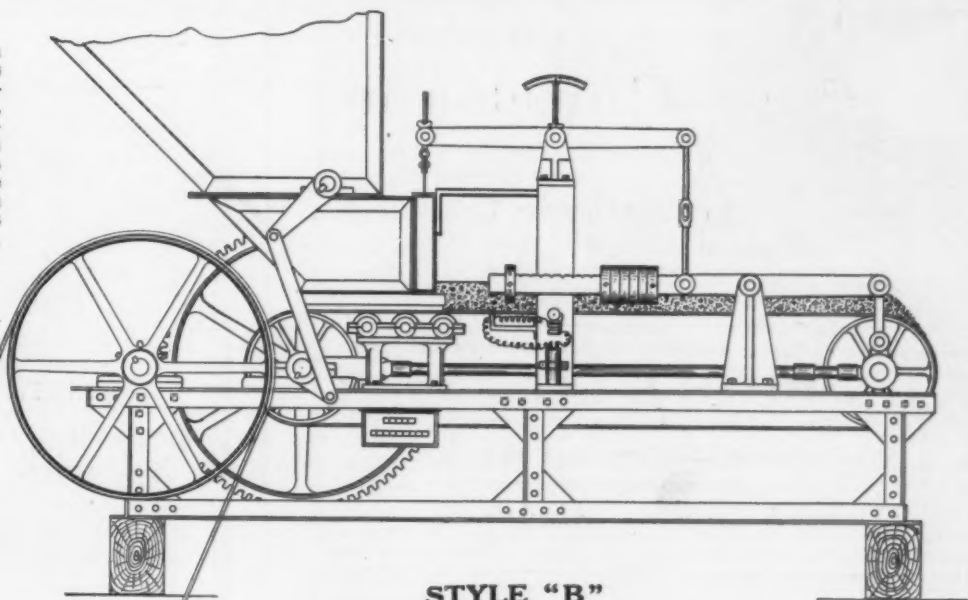
THE Schaffer Poidometer is a machine which weighs and regulates the flow of materials traveling in a continuous stream over a conveyor. It is built very substantially throughout, free from delicate working parts, and is mounted on a steel angle frame, complete with driving machinery. It can be attached to a hopper, bin or elevator spout, and delivers the material in any predetermined quantity at an even regular flow, and records the amount handled, regardless of changes in specific gravity, amount of moisture, or sizes of materials.

When it is desired to unite a number of different materials there is placed one machine for each of the materials, and each machine will deliver the desired proportions in a constant stream and insure an even mixture.

The machine is perfectly self-contained and can be set up immediately. It has a very wide range in capacity and can be readily adjusted, both for different quantities and also for a large variety of materials of different consistencies.

The wearing parts are limited in number and are of such a nature that they can be easily replaced. The poidometer is the result of many years of experiment with feeders and is proven a practical device.

This is only one of the links in the chain of SEECO SYSTEMS. A further inquiry will reveal interesting facts.



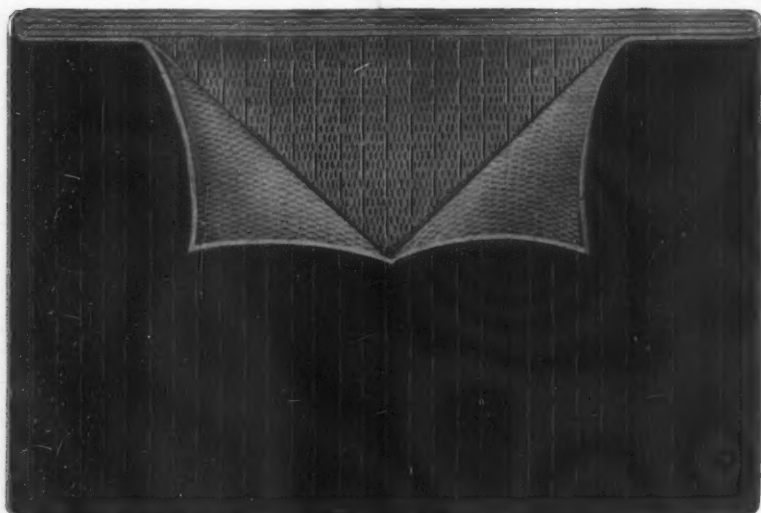
STYLE "B"

SEECO SYSTEMS SECURE SUCCESS

THE SCHAFFER ENGINEERING & EQUIPMENT COMPANY :: TIFFIN, OHIO

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS





# Rexall

## Double-Stitched Belting

Economical for the hard "stand the gaff" service of conveying, elevating—and heavy transmission in Stone Quarries, Cement Mills, and Sand and Gravel Plants.

### WHY?

### BECAUSE:

Protected inner stitching prevents ply separation—the base is a 37½ ounce duck, the heaviest practical to put in a belt—special edge construction resists wearing down on conveyor service—laminated construction holds fasteners and bucket bolts—and it is filled with a compound which prevents cracking and maintains pliability.

Carried in stock in 1000 foot rolls all sizes from 1 inch to 36 inch wide inclusive

A high grade, honestly made quality belt at the price of an ordinary belt

## Imperial Belting Company

Factory and General Offices:  
LINCOLN AND KINZIE STREETS  
CHICAGO



PERMANENT and THOROUGH  
Water-proofing of Cement Work  
results from the use of

## Maumee Compound

SPECIFICATIONS AND SAMPLES  
ON REQUEST

**The Maumee Chemical Co.**  
403 ST. CLAIR BUILDING  
TOLEDO, O.

**F. L. SMIDTH & CO.** 50 Church St. NEW YORK  
SPECIALISTS IN  
**Engineering Cement Works**  
AND  
**Cement Making Machinery**

**THE FULLER ENGINEERING CO.**  
Designing, Constructing and Operating Engineers  
ANALYTICAL CHEMISTS  
Cement, Hydrated Lime and Gypsum Plants a Specialty  
OFFICES: Allentown Natl. Bank Bldg. - - ALLENTOWN, PA



The whole Ohio Valley  
is rapidly building up  
with the products of

**Wheeling Wall Plaster Co.**  
Wheeling, W. Va.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

# With the Quarries

## Quarries Working Full Time.

### Orders in Pittsburgh District, However, None Too Plentiful—Railroad Contracts Are for Smaller Amounts.

Road stone men are not so chirky as they were last year. They are bidding hard for all work offered in this district, but fewer contracts are up for bids. Railroad stone contracts are not offering as much business as last year. In fact, the railroads are doing very little in industrial or construction work at present. Considerable bridge work is being let. Most of the stone quarries are running at nearly full capacity and find no trouble in getting cars or labor.

The Ellwood Stone Co. is running its plant at Ellwood City, Pa., extra full. It reports much bridge building and considerable street work, but no railroad business. Prices are fairly good and one of the most encouraging features of the situation is that the company does not now have to hunt for labor, as has been the case the past few years.

Arthur McMullen, of New York, has secured the contract for the Delaware river bridge at Trenton, N. J., and has sublet the stone contract on same to U. S. Houck, of Clearfield county, Pa. The job will run about \$20,000. The P. R. R. has let contract to Mr. Houck for a four-track bridge at Johnstown, Pa.

The Clydesdale Stone Co. is working hard on the P. R. R. bridge over the Allegheny river at Kiskiminetas Junction, Pa., connecting Freeport and Kiskiminetas.

The Pittsburgh public works department is trying to secure from Controller Morrow about \$1,000,000 for improving streets this year. There is some question as to whether all these requests will be granted.

### ARMSTRONG'S NEW PLANT GOING UP RAPIDLY.

The Armstrong Mfg. Co., of Waterloo, Iowa, is making rapid progress on its new plant in that city. New plans in prospect of erection of new buildings and the installation of new equipment called for an expenditure of \$75,000, which is made necessary by reason of the fact the company is not able to take care of its rapidly increasing business in the old plant.

The old plant will be kept running during the construction of the new one, the plan being to tear down one building at a time. At the present time the power plant and the boiler room are completed and it is expected that within a few months the entire new plant will be in running order. The Worden-Allen Co. are the contractors.

The Armstrong blast hole drills for quarry operators and cement manufacturers have found a wide and increasing call from various sections of the country.

### WILL OPERATE MAMMOTH QUARRIES.

Hartford, Conn., May 11.—A certificate of incorporation has been filed by New Haven Trap Rock Co., a \$2,000,000 corporation which is controlled jointly by the Blakeslee interests, contractors, and Hayden, Stone & Co., who recently bought Totoket mountain in Branford for its trap rock quarries, and the Fisk quarry interests there and the Branford Steam Railroad Co., which gives the connec-

tion between the quarries and tidewater. The company is incorporated to deal in stone, building material, etc.

The corporation has taken title to about 1,000 acres of property in and about North Branford and will spend \$750,000 at once in development of quarries and completion of the railroad to tidewater. The railroad will be about six miles long when completed and a tidewater terminal will be constructed for handling the stone. The company is to build three large crushers and to prepare for an immediate output of 2,800 yards of crushed material a day, and will double this capacity ere long.

## The Colorado Situation.

The Colorado mining situation is being "chewed" up by the press reports for the digestion of American readers, with the hope of making it appear that the owners of the mines and the investors in industrial properties have no rights of property nor, in fact, any right to be on earth, while the operatives must be accorded every privilege and presented with the gross receipts of the establishments and allowed to run the mines themselves or to dictate to the owners how they shall be run and operated. As a matter of fact, the owners and operators are not required by law to operate the mines at all and if, as a result of the unpleasantness, they should decide not to take out any more coal in the Colorado field it would probably be the best solution of the troubles that have been made for them.

There has been altogether too much harping on the string to the tune of "the needs of the down-trodden workman." It has become a feature of politics. It is featured by the press in such a way as to discourage business. All of the people of the country have an interest in the production of coal, as well as many other staple products, and insofar as the public interested in this controversy in Colorado will consent to increasing the price which they pay for coal to whatever demand the miners may make for taking it out of the mine, probably the operators would not object to any demand for increased prices of labor.

Granting all of this, the owners and operators would still have the right to operate their property according to their views of sensible, economical and reasonable business procedure. We have had entirely too much music on this same string. There is no such thing as the down-trodden workingman, and there never was such a thing in this country. No operator of any industry has ever attempted to pay his workmen any less than a reasonable compensation for the services rendered. If any operator should attempt such a thing it would be impossible for him to secure help, for the price of common labor in this country has always been high enough for any man who is disposed to work to make a comfortable living, even to save money, if he is willing to do his part.

The attitude of the press reports and the opinion that is growing by reason of the exploitation of the presupposed position of the workingman is such pronounced discouragement to the progress of stable industries that energetic business men no longer feel disposed to jeopardize their capital and their reputations in industrial pursuits. The continuance of such a policy and the establishment of such a public opinion will mean nothing less than a very decided shrinkage of industrial activity. It is a bad policy and can have but one ending—a

lesson of the importance of American commercial pursuits.

If there is any difference between an overpaid man and an underpaid man, the overpaid man is at the worst disadvantage for the reason that when a man receives more money for his services than those services are worth, he is the first one to recognize it and the first to abuse the surplus money which is given him through some trick of organization, the same as that pernicious element in the "newly rich" of this country who seized the unclaimed resources of this new continent and found themselves rich without effort. They have abused their wealth—and so invariably does the man abuse the excess of pay which he is able to receive that is beyond the worth of his services.

Just how we shall define and know the limit of value of a workman's services is a somewhat difficult task, one that requires a good deal of study and a great deal of intelligence and a very broad and wide knowledge of the business. When that schedule is discovered and such wages are paid and living conditions provided accordingly there will be perfect industrial satisfaction. This has been proven in other countries where more intelligent means of finding the value of the services have been resorted to than in the case of our own industries. It is not a question of how much a man can get out of his employer, but how much is that man worth to his employer. When a man receives exactly as much as his services are worth there is an incentive to that man to increase his services or the value of his services so as to increase his compensation in a parallel measure; but if the measure of his services has nothing to do with the man and the compensation that he receives, there is no incentive for him to increase his efficiency to become a better workman and to earn a higher wage.

Perhaps it is the easiest thing in the world to regulate the compensation of the workman as derived from the selling price of the article which he produces. There never has been and probably never will be a need for the control of the operator by the operative, for the reason that his profits and success are measured by the efficiency and contentment of the men who are in his employ. There is no better or more profitable asset to any operator than to have his workmen satisfied and contented, and hence efficient. The difference between a satisfied and contented man and that same man stirred up with discontent amounts to at least 50 per cent in any calculation of efficiency, so that the operator can be depended on to work diligently for conditions which will make his workmen contented. So long as there are political agitators who instruct so-called organizers to breed discontent among the workmen of any given industry, just so long will that industry be threatened with that kind of discontent which costs a great deal of money—which the public involved has to pay for in the long run.

A concession forced out of an operator for the sake of contentment or supposed contentment among the men simply means a higher price to the consuming public; then, if that concession amounts to overpaying those workmen, the result is not obtained and the advanced price has been created without the compensating contentment being achieved. Such questions as the one under discussion must be looked at squarely from the front. It is a many-sided proposition, but to put the operator and owner of the industrial properties in the wrong all the while and at the same time make it appear that the judgment of the operatives is also growing just and honest is a very preposterous proceeding.



## New Sturtevant Hammer-Bar Pulverizer.

The Sturtevant Mill Co., of Boston, Mass., has placed on the market a machine which is claimed to be a decided improvement, both mechanically and in principle of operation, in the line of impact pulverizers. They now have an unusually complete line of crushing, grinding and screening machinery, each suited to a special line of work, so their customers may select the best type for their purpose.

The Sturtevant Hammer-Bar pulverizer crushes soft and moderately hard materials (up to and including all limestones in hardness). It represents the greatest efficiency in a mill of this class.

### Description.

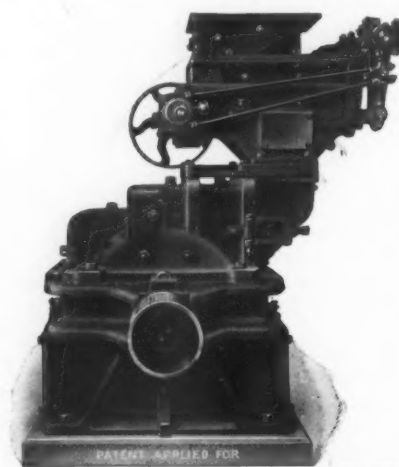
The material fed may be as large as 4 to 5 inches in size, with soft rock, varying to 1½ to 3 inches for harder substances. The rock is fed from an automatic feeder which drops it on the heavy hammer-bars of manganese steel, which move upward to meet it at high velocity (just as the bat meets the flying baseball). The impact is tremendous and the rock is smashed up against an armor breaking plate, from which it rebounds against another hammer bar swung up against it with the same smashing effect. Thus are dealt, against the rebounding rocks, a succession of terrific blows, and plate collisions (that recur 7,200 times a minute), resulting in an immense output of powdered stone.

Note that the smashing action already described represents the upward stroke of a bar hammer against rock rushing to meet it. The result attained represents the highest possible efficiency. But when the hammer bars begin their downward path, efficiency is so diminished (the bat chasing the ball strikes a feeble blow) that another plan must be adopted, and the descending hammer-bar is now brought close to a corrugated breaker plate where the greatly reduced broken stone is further pulverized between the high-speed hammer-bar and the corrugated plate in close relation thereto.

The hammers now pass close to the bar grate, made of the hardest steel, 1¾ inches deep. The ground rock dashed through the openings of the grate is sufficiently pulverized, and is now violently ejected from the case. This relieves the hammers which otherwise would drag through material already sufficiently reduced. Thus there is no finished rock left to repeat the circuit and waste

power. It is clearly seen that as soon as the hammers begin to rush upward again against the incoming rock, they resume their work of rock destruction.

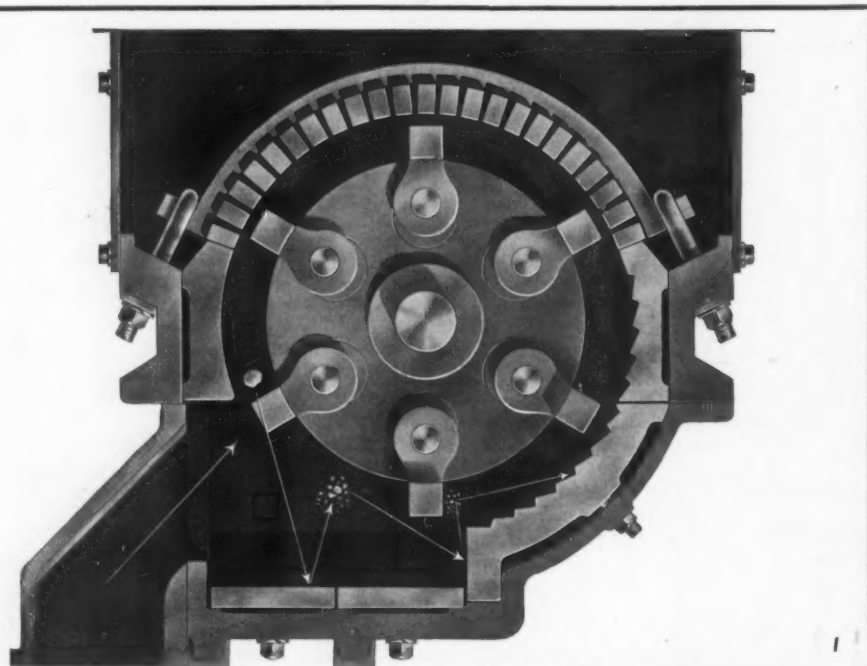
This mill is built extra heavy and runs with prac-



tically no vibration, as it is perfectly balanced, and the hammer bars, held strongly out by centrifugal force, revolve with the sustained regularity of a heavy balance wheel. The bearings are of ample proportion, self-oiling and dust proof. The hammer bars are of manganese steel and the screens of the hardest and strongest material obtainable. "Open-door" construction affords immediate access to the interior of the case for inspection and replacement of hammers, grates or screens.

A mammoth petition for a macadam road in Kankakee township, along the route of the Lincoln Highway, will shortly be filed, it is said, which will mean that the Lincoln Highway will be macadamized the entire distance through La Porte county, Indiana.

Calcite Stone Quarries, of Myerstown, Pa., have entered into a contract with the Easton Steel Co. covering a period of five years for the delivery of 500,000 tons of crushed stone for the furnaces. This will furnish work for the entire force, along with 25 additional men. As fast as the cars can be loaded they will be sent to Easton.



INTERIOR VIEW OF NEW STURTEVANT HAMMER-BAR PULVERIZER.

## Kansas Quarries Busy.

Railroad and Other Work Supplies Business for All.  
Rosedale Company Adding New Equipment.

Kansas City, Mo., May 18.—The crushed stone industry is hard at work in this section, with enough building calling for extensive use of material to insure a prosperous year. Railroad business is proving one of the bright features of the situation. Despite the fact that most of the roads have adopted retrenchment policies they are making a good many improvements of importance and are constituting excellent customers for crushed stone men.

The John Prince Crusher Co., the largest in this section, is still delivering to the new Union depot, concluding its contract on this particular piece of work. The company, however, is popular with the Terminal Railway Co. and is likely to provide most of the stone used by the railway on other projects. The Prince company has a daily capacity of 25 cars a day, the largest in this part of the country.

The Rosedale Crushed Stone Co. has doubled its capacity and is going after business aggressively under the management of James D. Malcolmson. Mr. Malcolmson has added enough new equipment to give him a daily capacity of 1,000 yards. The plant, as the name indicates, is near Rosedale, Kan. Railroad contracts have been rather plentiful recently, while elevator work, requiring 10,000 yards, is one of the features of the company's recent activity.

## DEATH TAKES DANIEL E. HEALY.

Daniel E. Healy died at his residence, 2700 Lime street, Chicago, Ill., May 11. His wife, Mrs. Margaret Healy, was buried on Sunday, May 10. Mr. Healy was for 54 years superintendent of the Stearns Lime and Stone Co. and one of the first residents of the territory known as "Bridgeport."

He was born in Ireland in 1834. The following year his parents brought him to Chicago and located at the south branch of the river and Archer road. As a boy he was accustomed to go "down the river" three miles to Clark street for groceries. He went to school in winter—in a building formerly occupied by cows and chickens—and sailed the lakes in summer until he got a job in the yards.

He was the holder of the "oldest settler's" picnic gold medal and the winner of the gold medal for longest service in one firm. Funeral services were held at St. Bridget's church, Thursday morning, May 14. Burial was at Calvary.

The aggregate gross value of the output of limestone quarries and lime kilns in England for 1913 is stated to be £1,909,000, to which should be added £275,000, the value of similar products which were included in the statements of output by firms that made their returns by schedules for other trade. The resulting total of £2,184,000 contains, however, a small amount of duplication.

The Cyclone Drill Co., Orrville, Ohio, has recently issued a very interesting booklet, comprising 78 pages, entitled "Cyclone Hollow Rod Tools." The Cyclone company are builders of drilling machinery for coal, water, oil, gas, placer, sounding and boring blast holes for quarry and railroad work of the hollow rod and cable type. The booklet consists, in great part, of descriptive matter contained in the Cyclone company's book, "Drill Work, Methods and Cost," which gives a splendid treatise on the subject of hollow rod tools and complete instructions for their operation. In the booklet just issued will be found many photographic reproductions of the tools in use, together with appropriate description. A considerable part of the booklet is devoted to parts.

# National Builders' Supply Association

## Organizations

In discussing this subject, the question invariably arises as to what are the practical results to the individual from his affiliation with organizations, and we answer that

First: He benefits from discussing with men in the same line of work, problems peculiar to that line.

Second: Close association and better acquaintance removes bitterness between individuals.

Third: Problems of general interest require united effort for right solution.

Fourth: Active participation in work with others results in education to the individual.

No one can deny the fact that each of the results outlined above are bound to be secured by the individual if he but faithfully follows out the precepts of true organization work, and now, after having, we believe, put forth four of the strongest arguments as regards the individual, we arrive at the point where we are asked as to what good does the "trade" in general derive from organization work.

First, we might say that the forces of the industry are thereby united.

Secondly, It gives a forum for presenting and considering questions of general interest and thus gives expression to the best thought of the trade.

We do not believe it is necessary to put forth any further arguments, for if we stop and consider, any industry that secures both of these conditions as an established part of their business, has placed itself in a commanding position.

Nearly every community has several men engaged in the building supply business and seeking its patrons from among the same class of people, and in proportion to the smallness of the community or its remoteness from great centers, jealousies, bickerings and animosities arise between men in the same line.

Every line of work has certain problems peculiar to it which are constant and call for the best effort of the individual in solving them. It is helpful to the individual to tell his troubles and annoyances to a sympathizing friend, but that friend can seldom appreciate the problem in such a manner as to enable him to give helpful suggestions.

It would seem that right at this point is where the trade association, composed of men in his particular line of business, should be called upon to help satisfactorily dispose of the questions that are proving so troublesome, but it is found as a rule, that the individual does not belong to his trade association, and when previously asked to come within its ranks, put forth a hundred and one excuses why he couldn't do so.

Every business man at some time or another finds it beneficial to be able to talk over his problems and difficulties with some one who can under-

stand his viewpoint; and that business man who is lacking this wonderful assistance by his failure to assist every movement that is being fostered to improve conditions in his trade, needs somebody to awaken him.

All of the great work that is being done today is accomplished not individually, but by a general "getting together" and working for the common good. It is to be hoped that the building supply man will soon realize this fact and wake up before it is too late.

## Board of Directors to Meet.

Notices have been sent out to all the members of the Board of Directors, advising them that the next regular meeting of the Board will be held at Hotel Sherman, Chicago, on Saturday, June 20, 1914. As stated in the last issue of ROCK PRODUCTS AND BUILDING MATERIALS, it is intended that as many of the members of the association as can possibly do so, should endeavor to be present and take part in the business discussions. Meeting once a year is not at all satisfactory in any organization and it is the opinion of the directors that considerable good will result from this invitation to the members at large to attend this session.

## N. B. S. A. Notes.

Headquarters of the N. B. S. A. have been visited within the past two weeks by James H. Allen, that wide-awake retailer from Lincoln, Neb., and W. W. Covey, the popular Cincinnati dealer. Both gentlemen were in good health and enjoyed their visit to Chicago.

A good many favorable comments have been received from members on the subject which was distributed with Bulletin No. 3, namely "Competitive Relations and Price Problems," by Mr. Charles Warner.

The "Open Price Policy," as spoken of by Mr. Warner, is now in use in a good many industries scattered all over the country and in every instance has proven very beneficial. Association headquarters is in possession of considerable information bearing on this subject, and if any of the members are interested in same, would be glad to have them make inquiry.

## Industrial Convention for Nashville.

The industrial convention of Workshop and Factory Inspectors and Labor Commissioners of the United States and the Dominion of Canada will be held in Nashville, June 8 to 12, this being the second convention of these organizations held south of the Ohio river.

It is the intention to have scientific discussion of the great questions of civic improvement and other kindred subjects affecting the manufacturing industries of the nation.

There is also a distinctive feature for educational purposes to be conducted at the convention, which will be of particular interest to the manufacturers. An exhibit of safety appliances for the purpose of safeguarding dangerous machinery, elevators, etc., and also appliances for the purpose of demonstrating effective ventilation and sanitary equipment for the industries of the South will be maintained.

## No Decision on Freight Rate Increase.

Manufacturers and retailers of building materials are at present marking time as far as the proposed freight rate increase and the car spotting charge now before the Interstate Commerce Commission are concerned.

It has been rumored that an increase of 4 per cent in freight rates will be permitted the eastern railroads by the Interstate Commerce Commission in their decision which is expected to be handed down on May 25.

## Proposed Lien Law to Be Published

What is said to contain the most ideal provisions for the protection of the building material dealer, is the proposed Mechanics' Lien Law of the state of New Jersey, which is at present before the state legislature. It was prepared by a committee appointed by ex-Governor (and now president) Wilson. Mr. Genung, president of the New Jersey Mason Material Dealers' Association, was a member of this commission, and James M. Reilly, secretary of the association, was secretary of the commission. A complete copy of the draft has been secured by ROCK PRODUCTS AND BUILDING MATERIALS. Because of law will be printed in the June 7th issue of ROCK PRODUCTS AND BUILDING MATERIALS, in order that retailers in other states may be able to intelligently take up this question before their state legislature.

Practically every state has its lien law; but many of them are of little benefit to the building material dealer—the man who furnishes the necessary supplies for construction work.

Every building material dealer in the country should avail himself of the opportunity to secure a draft of the New Jersey lien law. Dealers should send in their requests early for extra copies. Watch for the next issue of ROCK PRODUCTS AND BUILDING MATERIALS.

## COST FINDING CONTEST.

Every retailer should be interested in the Cost-Finding Contest being conducted by ROCK PRODUCTS AND BUILDING MATERIALS. See page 44.

### NATIONAL BUILDERS' SUPPLY ASSOCIATION.

Chamber of Commerce Bldg.

Chicago, Ill.

#### Application for Membership.

The undersigned being heartily in accord with the principles and aims of the National Builders' Supply Association does hereby apply for membership:

Firm name.....

Signed by.....

P. O. Address.....

Date.....

#### Officers.

President—Edw. K. Cormack, Chicago.  
Treasurer—John J. Voelkel, New Orleans.  
Secretary—L. F. Desmond, Chicago.

#### Directors.

J. H. Allen, Lincoln, Neb.  
Charles Warner, Wilmington, Del.  
C. N. Ray, Detroit, Mich.  
W. F. Jahneke, New Orleans, La.  
C. M. Kelly, Providence, R. I.  
W. W. Coney, Cincinnati, O.  
L. W. Macatee, Houston, Texas.  
D. J. Kennedy, Pittsburgh, Pa.



## Chicago Crusaders Invade the Sunny South

Builders' Supply Retailers of Southeastern Cities Prominent as Entertainers—Possibilities of the "New" South.

BY FRANK ADAMS MITCHELL

[Mr. Mitchell, vice-president and manager of the Ceresit Waterproofing Co., was one of thirty members of the Chicago Association of Commerce who spent the period of April 12 to April 26 touring the Southeastern states. While meeting hundreds on this trip, Mr. Mitchell has confined his remarks solely to the places visited and the principal building material men whose acquaintance he made.—EDITOR.]

This is the story of an invasion by a detachment of Chicago "Volunteers," in which the invaders returned rich in the spoils of information and experience, and with arms weary from the massed attacks of hand grenades in the form of friendly greetings.

On April 12 a special train pulled out of the Chicago Union station, bearing a delegation of 30 business men representing the Chicago Association of Commerce and headed for the southeast. At the beginning, let me say that this was not a selling campaign, for no sample cases were carried and business cards were tabooed. It was purely and simply a crusade of acquaintance.

During the two weeks of the trip, 19 cities of the southeast were visited. In this paper, I will of necessity, omit much of vital interest, partly because of lack of space, but largely because it is my purpose to confine myself to that which is of interest to persons in the building material field.

The first stop was at Louisville, and here we began to learn things about the possibilities of the land south of the now extinct "Mason and Dixon" line. I had the pleasure of an hour's chat with Leo M. Parsons of the Union Cement & Lime Co. Conditions in Louisville are in a hopeful state. I say hopeful, because the year so far has been productive of much planning, but little execution. We went to the top floor of the new Sparks building, and looked over the comfortable and attractive quarters of the Archi-

teets' and Engineers' club, next door to which is the exhibit room of the Union Cement & Lime Co. We enjoyed an hour's automobile ride through the beautiful parks of Louisville and as far as the homestead of Zachary Taylor. This is a brick residence built 75 or 80 years ago. I was particularly struck with the fact that it seemed to be in as good condition as ever. The zigzag cracks so often noticeable in brick structures were totally absent.

After spending half an hour at the Board of Trade, shaking hands with the mayor and leading business men, the train left for Lexington.

Building conditions in Lexington seem to be in about the same condition as Louisville. During our stay there, we were driven out to the Elmen-dorf farm, one of the finest and most up-to-date farms in the United States. The way in which concrete is used here would make an interesting booklet as an advertising medium for some of our cement friends.

### Kentucky State Law Holds Up Building.

There is a very peculiar situation in the state of Kentucky at the present time. The state law provides that insurance must be carried with companies having offices in the state. I was told by both Mr. Parsons of Louisville and Mr. Young of Louis DeCognets & Bros. of Lexington, that this condition is holding up a good deal of building. A day or so ago I had a talk with one of the insurance men of Chicago, and he told me

that the insurance companies were staying out of Kentucky, purposely, he thought, to force a change in this law.

On the morning of April 14 we arrived in Chattanooga. We were there during the forenoon and most of the time was spent in going up Lookout mountain. This left little opportunity for a discussion of business relations with the local men, but from the visitors' standpoint, the forenoon was spent with great profit.

I was informed by M. W. Eastland, of the Hibbler-Barnes Co., that the builders' supply business in Chattanooga is in excellent shape.

We left Chattanooga at noon, arriving in Knoxville at 3 o'clock. Here we found a city with a wealth of possibilities. It is in the center of a territory rich in mineral resources. The famous Tennessee marble is quarried by 16 different companies. The scenery around Knoxville is unsurpassed. Let me say here, that while I may not again mention the natural beauties of the section through which we passed they were a constant source of wonder and delight. The scenery of the southeast has been under advertised.

Asheville, "City of the Sapphire Sky," was our next stop, where we spent the entire day of April 15. Asheville is best known as a winter resort, but the evidences of commercial progress gave us an agreeable surprise. We had luncheon at Grove Park Inn, a million-dollar granite structure set in the midst of a beautiful 500-acre estate.

The next morning at 7 o'clock we arrived at Winston-Salem, where the wheels of industry run "26" hours a day. We went through the R. J. Reynolds tobacco factory and saw enough "P. A." to keep the country in smoking tobacco for a couple of generations. We also saw a few tons of excellent chewing tobacco, although we denied ourselves the pleasure of testing its virtues.

After an hour of sight-seeing as the guests of the Board of Trade, a meeting was held in which an address was made by the mayor, and responded to by the chairman of our delegation, Edward E. Gore.

### Business in Winston-Salem Is Brisk.

I had the pleasure of half-an-hour's talk with E. T. Mickey, of the Orinoco Supply Co., one of the leading builders' supply dealers. He, as well as H. A. Pfohl, of Fogle Bros. Co., informed me that building conditions in Winston-Salem are in first-class shape, and if Winston-Salem keeps on growing as it has during the past few years, I am convinced that both of these gentlemen will be able to retire from business and spend their surplus in aeroplanes or some other form of diversion in which the idle rich indulge.

The stay at Greensboro was short. We reached there at 11 o'clock and left at 1 o'clock, but I do not think I ever crowded more into two hours than at that place. We were met by a delegation from the Chamber of Commerce with automobiles, bearing large streamers with the words, "Greensboro Welcomes Chicago." For nearly an hour we were shown the city of Greensboro and surrounding country. After traveling for a short time, I asked the driver if they had any speed limit in Greensboro. He said he presumed they had, but inasmuch as we had with us the superintendent of public safety, he thought we were pretty safe. We finished the ride in sound condition, but considerably shaken up. I dropped in to make the acquaintance of the president of the Odell Hardware Co. He showed me their entire plant. They handle wholesale and retail hardware, mill supplies and builders' supplies. Their business extends throughout North Carolina. I was amazed to find such a perfectly ordered and complete organization in a city the size of Greensboro. If they were in Chicago, they would certainly be considered one of the leading companies, and I consider the half-hour spent in the store



MAP SHOWING ROUTE FOLLOWED BY THE CHICAGO ASSOCIATION OF COMMERCE DELEGATION ON ITS TRIP THROUGH THE SOUTHEAST. FOLLOW THE ARROWS.

of the Odell Hardware Co. one of the treats of the trip.

After half an hour spent with R. S. McClamrock, one of the leading building supply men of Greensboro, I received further reason for believing that Greensboro is fast becoming one of the leading cities of that section. The building supply business seems to be thriving there, and after looking over the city, it was not hard to find the reason.

We reached Charlotte at 3 o'clock and remained there until midnight. I was fortunate in having as my host R. W. Barnett, of the B. F. Withers Co. We took a ride over the surrounding country and as we turned back towards the city at 5 o'clock, we had a wonderful view of Charlotte's famous sky-line. I am frank to say that most of our party expressed their astonishment at the number of modern buildings, and it is needless to say that our Charlotte hosts beamed with conscious pride. Mr. Barnett was enthusiastic over the outlook in Charlotte. There are a number of big contracts coming up, and building is going on there on a large scale.

Some of our party had the privilege of making a call on Mrs. "Stonewall" Jackson, and were very cordially received. One of the men from Charlotte stated that as far as he knew, Mrs. Jackson never has an unkind word to say about anybody, and as we of the north know, she certainly has had cause for a good many unkind thoughts.

#### Charleston's Port Bound to Be of Value.

The morning of April 17 found us in Columbia. Our stay was very short and was spent principally in going through the largest cotton mill in the world, which is located there. The afternoon and evening were devoted to Charleston, where we were delightfully entertained, and in the evening given a reception by three hundred members of the Board of Trade. Charleston is a city rich in history and filled with spots made famous during the last three centuries. In a way, this has been unfortunate for the commercial progress of Charleston. I am frank to say, that I believe they have lived too much in the past. That the business men of Charleston realize this is evidenced by the fact that conditions there are better than they have been in a number of years, and everywhere we found a hopeful atmosphere regarding the progress Charleston will make during the next decade. They realize that Charleston may be the great port of the south Atlantic coast. If it isn't, it won't be the fault of any lack of energy on their part.

We were informed in Charleston that South Carolina holds the record for the yield of corn per acre of the United States. This was quite a surprise to the men of Chicago, as it is generally understood that Illinois is THE corn state.

Saturday and Sunday were spent in Augusta. I had as my host, one of the principal building supply men of Augusta, Mr. A. H. McDaniels. Augusta at the present time is putting up a 10-story building, a 17-story building, a new hotel, and plans are ready for a new \$300,000 postoffice. Eight miles from Augusta is located the 40,000-horsepower hydro-electric development. It is estimated that this great source of power will increase the commercial supremacy of Augusta to a wonderful extent and increase the population at least 20,000 inside of five years.

#### Treated to Georgia Barbecue.

On that Saturday afternoon, we were taken out to the Carmichael Fishing club and given an old-fashioned Georgia barbecue. There were 30 Chicago men in the party, and I heard 29 of them tell me it was the best meal they ever had. I quickly made it unanimous. Sunday was spent quietly in our train, and it was a real day of rest for us, because we were spared the rapid-fire

(Continued on Page 50.)

## Contractors' Bonds as Substitutes for Materialmen's Liens

By Hon. Henry A. Alexander, of the Atlanta Bar.  
Author of a Treatise on "The Lien Laws of the Southeastern States."

The impression that the liens of materialmen are a special and unmerited privilege is a misconception. They are in reality only one of a number of expressions of two fundamental legal principles: First, that the law should give the creditor every possible aid in the collection of his debt short of interference with innocent third parties and the normal course of business; and, second, that in the sale of property, as long as the purchase price remains unpaid, the rights of the vendor are superior to those of the vendee. They stand upon the same basis as the vendor's lien and the attachment of property upon default in payment of purchase price. Where these principles are not enforced, it is not because of the unwillingness of the law, but because of the nature of the thing sold. Property which is consumed in its use cannot be attached for purchase money or subjected to a vendor's lien, not because the vendors have not the right, but because the thing itself cannot be found. It so happens with the materialman that his goods have a permanent form and that he can give notice of his claim to third persons by its registration on the public records, and there is no reason why the principles referred to should not be applied to his case.

But merely to show that the materialman is not a recipient of special favors falls far short of a complete statement of his position. His effective protection tends to promote the permanent improvement of land, and is a vital factor in the development and growth of the community. A materialman's lien constitutes, in proportion to its effectiveness, a basis of credit, both for the owner of real estate, who, though lacking sufficient cash capital, is thus enabled to improve it, and for the contractor, who, though he be without capital, may on the faith of the security afforded him by the law, obtain from materialmen the necessary supplies for the execution of his contract. The direct result is to bring into the business of contracting many persons of character and ability who would otherwise be excluded.

That it is not alone the demands of materialmen that sustain the lien laws is shown by the fact that many of them hold the view that their business could be conducted upon a far more satisfactory basis if there were none at all, thus compelling them to look solely to the personal credit of the contractor in extending credit. This, however, would be unfortunate for the public in throwing the business of contracting into the hands of the limited number of those contractors with capital and resources who could satisfy materialmen that their accounts would be duly paid, thereby eliminating from the business thousands of competent and honest men—a condition which would tend directly to increase the cost of building. It is these considerations, in the writer's opinion, which, in the face of the feeling that they are a special and arbitrary privilege, have kept the lien laws upon the statute books of every state in the Union.

It is true, however, that the nature of the subject is such as to make it exceedingly difficult, if not practically impossible, to formulate a lien law that will be at once just, effective and practicable. Under those now existing, the factors entering into the liens of materialmen furnishing supplies through contractors are so numerous and complicated that successful establishment is the exception. It is probably true that only a minor proportion of those claimed and filed could withstand a thorough contest. The greater part of such efficacy as they have

grows out of the fact that when entered on the court records they constitute a cloud upon title and a possible source of danger to subsequent purchasers or mortgagees, thereby, through their unwillingness to take chances, causing attorneys, in the examination of titles, though doubting the validity of the lien, to require its cancellation and removal.

The drafting of a just and effective lien law is a task beset with problems, most of which permit of solution only by a choice of difficulties. Among the lesser is the determination of how far the privilege of the lien should extend along the chain of contractors between the principal contractor and the sub-contractors and materialmen under him. Another is, whether the lien should be retroactive and relate back to the date of the beginning of work or the furnishing of material, or take effect only from its filing and entry on the public records. Another is the proper rule of priority between the lien and a prior mortgage as to the improvements themselves for which the lien is claimed. Another arises when the contractor fails to complete his contract, with part of the contract price still remaining in the hands of the owner, leaving materialmen's liens unpaid which were recorded prior to his default. The question then is, Shall the owner be allowed to take this balance to complete the contract, or must he apply it to the payment of the recorded liens? Another is the proper method of fixing the amount of the lien when the contract price is found to be insufficient to discharge all—whether by the amount due the contractor by the owner at the time of the service of notice by the materialmen, or, after completion of the work, by a marshaling of the liens and an apportionment of the balance of the contract price among them. But the fundamental difficulty is this: In its ultimate analysis, every lien law is in effect a garnishment or impounding of the contract price in the hands of the owner in order to apply it to the claims of those from whom the principal contractor has procured the labor and material entering into his work. In most of the states, this garnishment or impounding is effected by a written notice to the owner, served upon him by the materialmen or sub-contractors a short period after the completion of their work, and thereupon a lien for their accounts arises in their favor, limited by the sum owing by the owner to the principal contractor at the time of the receipt of the notice. In other states the garnishment or impounding is effected by mere operation of law, the statute making it the duty of the owner, without notice from the materialmen or sub-contractors, to retain a sufficient sum to pay their accounts. The underlying weakness of both of these systems is that, to an indeterminate extent, they seek to require the owner to retain in his possession for the benefit of sub-contractors and materialmen funds which, by the terms of his contract, or by the practical necessities of the case in order to prevent the stopping of work, he is compelled, from time to time, to pay out to the contractor. In those cases where the contractor is honest or solvent and the cost of the work does not exceed the contract price, the results may be satisfactory. But where the contractor is dishonest or insolvent, or the cost of the work exceeds the contract price, or there is collusion, either between the owner and the contractor against the materialman, or between the contractor and the materialman against the owner, these laws can afford but very little protection. Herein lies the inherent defect of all lien laws—a defect which

\* Reprinted from Case and Comment, the Lawyers' Magazine.

(Continued on Page 51.)



# Eastern Pennsylvania Dealers After Reforms

At May 7th Meeting at Reading, Pa., Action Is Taken to Urge Other Associations to Affiliate in Attempt to Secure More Protection and Better Profits.

At the second meeting of the Building Material Dealers' Association of Eastern Pennsylvania, which was held at the American House, Reading, Pa., on Thursday, May 7, it was decided that a committee be appointed to meet committees from other builders' supply associations and wait upon manufacturers of the various building materials with requests for reforms in the wholesaling of these materials so that a better margin of profit

the greatest enthusiasm and spirit that it is possible to be shown by each and every member. I am highly in favor of this association, and will do all in my power to help make it a success."

This comment was enthusiastically received, as it spoke the opinion of not only Mr. Palmer but others who were present for the first time. It coincides with the beliefs of the officers and organizers.

Mr. Palmer argued that in order to secure reforms from manufacturers of building materials it is necessary that committees from the various retailers' associations be appointed to call upon the manufacturers and discuss with them the various grievances that at the present time exist and any which might arise in the future. This thought was favorably received and a committee was appointed by the Eastern Pennsylvania Association to meet with similar committees from other organizations. It was understood that this should be a standing committee and consist of three members of each association.

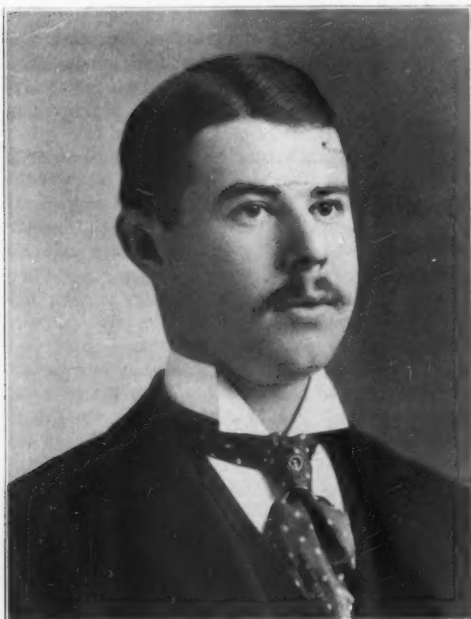
It is hoped that these committees will be able to accomplish for the retailers of their respective associations the desired changes and will bring about a better feeling of co-operation between the retailers of the various states and a policy of reciprocity between dealers and manufacturers.

As the result of a motion which was duly seconded and carried, the following committee was appointed to meet with committees from such other associations as care to affiliate in presenting their grievances to the manufacturers: Joseph H. Palmer, Wallingford, Pa.; Luther Keller, Scranton, Pa., and J. L. Durnell, Philadelphia, Pa. Secretary J. Allison Gring was instructed to request the appointment of similar committees in other associations and to bring about a meeting of these committees. It was the sense of this meeting that the first subject to be taken up for consideration by the joint committee is the cement question.

The latter part of the meeting was thrown open to manufacturers and their representatives, twelve

taking advantage of this opportunity to meet the dealers.

President Miller called on Mr. DeBall, of the Charles Warner Co., Philadelphia, who declared that it was the policy of his company to keep in close touch with the retailers and that this policy works out very harmoniously. "I am sure," said Mr. DeBall, "that the company I represent will be willing to consider any propositions that the asso-



CHARLES A. MILLER, READING, PA., PRESIDENT OF THE BUILDING MATERIAL DEALERS' ASSOCIATION OF EASTERN PENNSYLVANIA.

may be had by the retailers and that direct selling on the part of the manufacturers might be eliminated.

Promptly at 2 o'clock the meeting was called to order by President Charles A. Miller, who in a short address welcomed the retailers. For the benefit of those who were present for the first time Mr. Miller outlined briefly the purpose of the recently organized association.

Following the reading and approval of the minutes of the previous meeting, the constitution and by-laws were submitted by the committee on constitution and by-laws. The various sections were read and discussed and practically approved as submitted by the committee. The date of meeting was changed to read from the first Tuesday after the first Monday in February to the second Tuesday after the first Monday in February. It was discovered that the date approved of by the committee was similar to that adopted by the New York State Builders' Supply Association. In order to permit those who enjoy attending the meetings of the different associations an opportunity to do so, the change was made to a date which would not in any way conflict with other associations. The constitution and by-laws as changed were adopted unanimously.

Association matters were thoroughly discussed and brought out many favorable comments. J. S. Palmer, of Wallingford, Pa., spoke as follows:

"I have been connected with different associations and have always found that they are a great benefit to each individual member. To make this association a success, it must be supported with



LUTHER KELLER, SCRANTON, PA., TREASURER OF THE BUILDING MATERIAL DEALERS' ASSOCIATION OF EASTERN PENNSYLVANIA.

ciation may wish to present from time to time."

Bert Swett, eastern sales manager of the Lehigh Portland Cement Co., Allentown, Pa., was also called upon. He said that he thought the cement companies would be glad to meet the dealers and take up any propositions that would be beneficial to both.

The question of the differential in the price of cement in favor of the dealer was brought up by one of the members present. It seemed to be the consensus of opinion that the differential of 5 cents per barrel should be at least doubled. This will undoubtedly constitute one of the requests that will be presented to the cement manufacturers.

James T. Wakeman, of the Edison Portland Cement Co., Philadelphia, was another speaker. He assured the dealers present that the Edison Co. was always with them in spirit and ready to concede to any reasonable demand.

The meeting was voted a decided success, and the register showed the following classified attendants. Members present who had attended first meeting:

E. L. Merriman, Scranton, Pa.  
M. A. Gring, Reading, Pa.  
J. N. Hendricks, Pottstown, Pa.  
D. C. Geiger, Reading, Pa.  
W. L. White, Bloomsburg, Pa.  
J. Lynn Durnell, Philadelphia, Pa.  
Charles A. Miller, Reading, Pa.  
J. A. Gring, Reading, Pa.  
C. H. Cox, Phoenixville, Pa.  
Luther Keller, Scranton, Pa.

The following were in attendance and taken in as charter members:

Gerry Cox, Phoenixville, Pa.  
B. F. Fatschke, Lebanon, Pa.  
A. S. Tyson, Lansdale, Pa.  
L. H. Texter (George Snyder Est.), Hatfield, Pa.  
J. C. Budding, Lancaster, Pa.



E. L. MERRIMAN, SCRANTON, PA., VICE-PRESIDENT OF THE BUILDING MATERIAL DEALERS' ASSOCIATION OF EASTERN PENNSYLVANIA.

William Schuler, Wilkes-Barre, Pa.  
George F. Erich, Allentown, Pa.  
Joseph H. Palmer, Wallingford, Pa.  
Edward P. Pusey, Wilmington, Pa.  
Scheele Bros., Girardville, Pa.  
E. M. Martin, New Holland, Pa.  
Malony Oil & Mfg. Co., Scranton, Pa.

The following applications were received from retailers not present and were elected to membership as charter members:

Moses Griffith, Plains, Pa.  
J. H. Griffith, Nesquehoning, Pa.  
I. W. Eunnell, Pleasant Mount, Pa.  
The DeFrain Sand Co., Philadelphia, Pa.  
William Hobensack, Ivyland, Pa.  
C. E. Seldomridge, Ephrata, Pa.  
Jere Woodring & Co., Hazleton, Pa.  
J. Watson Craft, Ambler, Pa.  
Morris P. Penrose, Phoenixville, Pa.  
D. R. Kishel, Ottawa, Pa.  
Charles Huston & Bro., Three Springs, Pa.  
J. Fegley & Son, Pottstown, Pa.

The following associate members were elected:

Lehigh Portland Cement Co., Allentown, Pa.  
Edison Portland Cement Co., Philadelphia, Pa.  
Coplay Portland Cement Co., Philadelphia, Pa.  
Nazareth Portland Cement Co., Philadelphia, Pa.  
Allentown Portland Cement Co., Allentown, Pa.  
William G. Hartranft & Co., Philadelphia, Pa.  
Charles Warner Co., Wilmington, Del.  
J. B. King & Co., New York City.  
Keystone Plaster Co., Philadelphia, Pa.  
United States Gypsum Co., New York City.

### Protest Contracts for Materials.

#### Lowell, Mass., Retailers Claim They Were Deprived of Chance to Bid.

The failure of the commissioner of streets and highways of Lowell, Mass., to include the words "or their equals" in requisitions calling for the submission of bids for cement for the street and sewer work has raised quite a rumpus among building material retailers and at the Lowell city hall, into which have been drawn the purchasing agent, the city solicitor, the commissioner of finance and the commissioner of streets and highways. One contract has already been awarded, while the other has been held up, pending some adjustment which shall approximate satisfaction.

Some few days ago Commissioner Morse called for bids for 6,000 barrels of cement for the street department and 500 barrels for the sewer department. In his requisition he named five brands of Portland cement, while in his requisition for cement for the sewer department he named only two. The words "or their equal" did not appear in either requisition, and, as a result, certain dealers claim that they were unceremoniously cut off from entering a bid.

Inasmuch as five brands of cement were named for the street work there was hardly as much kick

raised, but Daniel T. Sullivan, who could not bid on either of the two required for sewer work cement submitted a bid of \$1.85 a barrel for a brand of cement not mentioned for the sewer work. This bid could not be considered, because he was not furnishing a brand of cement which the commissioner wanted. E. A. Wilson & Co. were also cut off from bidding because they are not agents for either of the two desired brands.

Mr. Morse, it is understood, justified his action in naming certain brands by saying that he knows cement, and that certain kinds are the only ones which can do the work. Some set with rapidity, while others are very slow-setters. The latter he wishes to avoid. Furthermore, it is said, the city solicitor backs up the commission by saying that he has a right to specify certain brands, if he has



J. B. FARWELL CELEBRATED ON MAY 6 THE FIFTIETH ANNIVERSARY OF HIS ENTRY INTO THE BUILDING MATERIAL BUSINESS.

every reason to believe that such brands will do the work better than any others. The purchasing agent is saying nothing.

Commissioner Brown believes in opening up the lists to everybody, and says he is against specifying any particular brands.

In the meantime E. A. Wilson & Co. have been awarded the contract to supply 6,000 barrels of cement for street work, their bid being \$1.84 a barrel. The bids of Edward Cawley were not considered because of some dispute about the figures he submitted.

### Completes Half Century of Retailing.

#### James B. Farwell, of Oswego, N. Y., Witnesses Advent of Many Popular Materials.

May 6 recorded two anniversaries of interest to the citizens of Oswego, N. Y., at least one of which is also of interest to the building material industry of the United States. It was the one hundredth anniversary of the day that Oswego fell into the hands of the British during the war of 1812-1814. It was also the anniversary of the advent into the building material business of James B. Farwell, representing a half-turn of the wheel of time and recording a half-century mark.

While the anniversary of the event of a century ago was practically ignored, not being remembered with brass bands, parades and speech-making

meetings, yet the other was heralded with much enthusiasm and delight by associates and friends of the man who entered business two-score and 10 years ago and has since witnessed the introduction of many popular materials of the present age.

Mr. Farwell, who is senior member of the firm of J. B. Farwell & Co., was not in Oswego on the day of his anniversary, so that the term "he celebrated the fiftieth anniversary of his advent into business" is a figure of speech, as on May 6, Mr. Farwell and his wife were on their way home from St. Petersburg, Fla., where they had spent the winter.

In 1863, Mr. Farwell started out as a bookkeeper to Osborne & Platt, plaster, lime and cement dealers. With the retirement of Mr. Osborne, S. M. Platt and Mr. Farwell formed a co-partnership on May 6, 1864. Mr. Platt died in the fall of 1865 and a new co-partnership was formed between Mr. Farwell and the late James Sloan, which continued until 1873, when Mr. Sloan retired. Albert N. Himes, who died recently in Grand Rapids, Mich., succeeded Mr. Sloan, the firm name being changed to Farwell & Himes. For many years this firm successfully conducted plaster mills on the island dock in the Oswego river and near the old guard lock on the Oswego canal.

In 1875, Frank P. Farrell entered the employ of Farwell & Himes at the age of 16 years, spending the first year in their land plaster and hydraulic cement mill. In 1876 young Farrell was promoted to the office. He became bookkeeper in 1877. In March, 1880, Mr. Himes retired and Farrell took his place, the company name being changed to J. B. Farwell & Co. Since then the firm name has remained unchanged and both Mr. Farwell and Mr. Farrell have been actively engaged in conducting its affairs. Mr. Farrell's connection with the company extends over a period of 39 years, and his partnership for 34 years.

Since 1879 a branch of their business has been the handling of large numbers of telephone and telegraph poles, cut in Canada and shipped all over the eastern states. This was in conjunction with the builders' supply business in Oswego, which has reached considerable size.

One of the interesting features connected with Mr. Farwell's experience of 50 years is that the present place of his business is located within 50 feet of where he started half a century ago.



FRANK P. FARRELL, WHO FOR THIRTY-NINE YEARS HAS BEEN ASSOCIATED WITH J. B. FARWELL & CO.



J. N. HENRICKS, POTTSTOWN, PA., VICE-PRESIDENT OF THE BUILDING MATERIAL DEALERS' ASSOCIATION OF EASTERN PENNSYLVANIA.



# CASH FOR IDEAS

on

## "COSTS OF THE RETAIL DEALER"

ROCK PRODUCTS AND BUILDING MATERIALS is going to make it worth while for anyone who has special thoughts on the subject of "Costs of the Retailer," to communicate them to its readers. Twenty-five dollars will be paid for the best article on the most improved methods for ascertaining costs, and any further suggestions concerning the retailers' problems. Fifteen dollars will be paid for the next best article, and ten dollars will be paid for the third best article. For every other article submitted there will be a prize of lesser value awarded.

This is to be not only a contest; this is to be a nucleus for a regular department devoted to the betterment of the cost systems of the retail dealers; and everyone, whether interested in the prizes or not, should submit articles and be ready with suggestions or criticisms when some of the various articles are published in future issues of ROCK PRODUCTS AND BUILDING MATERIALS.

There are a large number of building material dealers who understand quite thoroughly their costs of doing business. But there are also a large number who do not understand or at least do not estimate correctly their cost problems. The

overhead cost of handling respectively such articles as cement, lime and plaster; the value of one department as compared with another; whether in certain communities it is worth while to carry certain lines; the correct way to figure the selling price; these, and many other problems enter into the figuring of costs.

ROCK PRODUCTS AND BUILDING MATERIALS has always been the standard bearer of the building material dealer. His troubles have been its troubles. This "cost contest" is now proposed in order to bring out the best ideas in the industry on the subject.

### The Terms of the Contest will be as follows:

All articles must be submitted before June first; and the results, with the opening of the cost department, will be published in the issue of June seventh.

The contestants must be either subscribers personally or permanently employed by a subscriber to ROCK PRODUCTS AND BUILDING MATERIALS.

This is not to be a literary contest. Ideas are what are wanted. Put them into your own language. If necessary, the editorial department will re-write your article. The awards will be made on the ideas offered, not on the manner in which the article is written.

ROCK PRODUCTS AND BUILDING MATERIALS reserves the right to use any or all of the suggestions or articles in its editorial columns for the enlightenment of the business and for the encouragement of better cost systems and more intelligent operations in the retail business.

The judges will be selected from the building material trade, together with a member of the staff of ROCK PRODUCTS AND BUILDING MATERIALS.

*It is hoped that replies will be received from all classes of the trade, including the large and small dealer, the manufacturer, the wholesaler, the salesman, etc. Everyone's ideas are valuable, and the very thought which YOU may deem insignificant may be the one that will win the greatest recognition. Stop now and send us YOUR IDEAS.*

Address all communications relative to this contest care Editor, Cost Department,

ROCK PRODUCTS AND BUILDING MATERIALS,

537 South Dearborn Street,

Chicago, Ill.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

## Cost Systems Indispensable.

### Basis on Which to Fix Legitimate Profit and Correct Selling Price Necessary.

"Costs of the Retail Dealer" is a subject that has created considerable interest in the building material industry for some years past, as dealers and manufacturers developed in their ideas toward more efficient and systematic methods. With the idea of bringing forth the best thoughts of the trade on this subject, a cost contest was recently instituted by ROCK PRODUCTS AND BUILDING MATERIALS, as outlined on another page of this issue.

In line with this subject the following letter was recently turned over to the Cost Editor of ROCK PRODUCTS AND BUILDING MATERIALS, and illustrates the thoughts of one man upon this all-important topic:

"You may ask any retail dealer how much overhead expense he has during the year and he will look at you in amazement, scratch his head and say, 'Well, Mister, you have one on me. I don't know what you mean by overhead expenses. I don't think I have any.' And he goes on year after year conducting his business along these lines. Were it not for the altruism of his father-in-law he would go hungry many a day."

Statistics tell us that 90 per cent of the retail merchants fail in business and the writer believes that if the truth were known of the cause of these failures, it could be said of a very large percentage of them that they failed because of a lack of the knowledge of the cost of their goods.

An accurate cost system should serve a three-fold purpose; first, it should reveal the exact cost of your goods in order to form a basis for a legitimate selling price; second, it should reveal to you a method whereby you will be able to reduce the cost in order that you may reduce the selling price; third, it should reveal to you reasons for a firmer faith in your right to a legitimate profit.

It is a fact, that few dealers will dispute, that the average dealer has been much handicapped in not knowing just what his goods cost him and therefore had no basis on which to figure a reliable selling price. That this has been the germ that has been multiplying and feeding upon his profits, every progressive dealer will admit, and since he has commenced his accurate method of figuring cost, he now wonders how he kept from under the sheriff's hammer as long as he did.

"Knowledge is power," and it applies to the building material business as well as to every phase of life, and if you have not had the exact knowledge of what your goods cost, you are being robbed of one of the most valuable assets of your business.

It is not only necessary for the dealer to have a reliable basis on which to fix a selling price as well as a legitimate profit, but it is just as important that he should know why each item costs him a certain amount in order, if possible, to reduce the cost, and let us say right here, Mr. Dealer, if you are careful in your investigation, you will find more germs that are feeding upon your profits and unless they are soon destroyed they will have them completely devoured.

## Cost Contest Closes June First.

### Readers Are Urged to Send in Articles on "Cost of Doing Business."

The "Cost Contest" is announced for the last time in this issue of ROCK PRODUCTS AND BUILDING MATERIALS. All prospective contestants are urged to send in their contributions before June 1, which has been set as the closing date of this contest. The judges desire ample time to carefully study each article sent in. Readers are therefore urged to submit their papers at the earliest possible date.

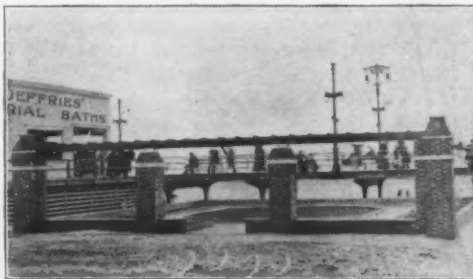
In this age of thoughtful discussion concerning the all-important subject of costs, the retail dealer

in building materials has, in many instances, overlooked the value of the application of these principles. For there are many retail dealers who do not know accurately their costs of operation, nor do they understand thoroughly correct methods of figuring profit. To dissect the situation even further, many of the simplest leakages which are occurring daily in the dealer's yard, such as the loss of lime in storage, etc., have been overlooked.

The subject of costs, including the figuring of overhead expense, is, of course, the important feature of insuring an accurate profit, but the small leaks all over the yard, which can be rectified by efficient and systematic methods, are also of great importance in bringing the totals on the right side of the ledger.

The man who is on the highway to success is always watching the opportunities for improvement and correction and should be a sufficient student of business efficiency to appreciate the opportunity when it knocks upon the gate.

ROCK PRODUCTS AND BUILDING MATERIALS has always been the standard-bearer of the building material dealer. His troubles have been its troubles. The subject of costs may not be as interesting or as necessary a subject to some dealers as to others. But in order to create a REAL discussion of the subject and to cover all its phases and angles, this publication has instituted a cost department and has offered cash remuneration for the best articles on the subject of costs. Let everyone enter into the spirit of this department, which has been insti-



BRICK PILLARS AT STATES AVENUE AND BOARDWALK, ATLANTIC CITY, N. J.

tuted to help the dealer and the industry in general.

It is desired that our readers take advantage of this opportunity to place cigar money in their pockets. We want every reader, from manufacturers and large retailers to the dealer in a small country town or the humblest salesman on the road to tell us how the business of a building material firm should be conducted. It is not necessary to describe some system now in effect, but some practical method is desired. The grammar used in submitting your contribution will not be considered; what we want is the meat of your article, not the dressing. Tell us in your own words how the cost of doing business, ascertaining a selling price and figuring a profit can be best and most reliably secured.

The contest is open to men in all branches of the building material trade, including large and small retailers, manufacturers, wholesalers, office, yard and traveling salesmen, as well as regular office employees. The only requisite is that the contestant must be either a subscriber or an employee of a subscriber of ROCK PRODUCTS AND BUILDING MATERIALS.

Remember, FIFTY DOLLARS ARE TO BE GIVEN AWAY for the three best articles submitted. The very thought that you may think insignificant may be the one most desired and may win the greatest recognition. See the terms of contest on opposite page.

The results of letters, articles and discussions in this new cost department of ROCK PRODUCTS AND BUILDING MATERIALS should be of benefit to all live factors in the business, and with the help of the

whole industry behind it, the cost problem of the retail dealer, with its many present vagaries, will be dispelled forever.

## Art in Brickwork.

States avenue, Atlantic City, N. J., is prevented from running directly into the ocean by Atlantic City's world-famous "board walk." The sidewalks of this avenue are inclined just previous to joining the board walk and when the latter is reached the two sidewalks are of the same height and pedestrian and wheel chair traffic can be changed from one to the other without any inconvenience.

The street itself comes to an abrupt end, with a beautifully arranged grass-plot, which is enclosed on three sides with a low concrete wall. The fourth side consists of a brick wall with four beautiful brick pillars and a pergola extending the entire width of the wall. The contrast between the yellow sand in the road way and the green grass in the "square" is quite pleasing and attracts the attention of a large number of those who enjoy promenading on the board walk.

While the pillars are constructed of common red brick with a row or two of white enamel brick and ordinary lime mortar, yet they are picturesque and arouse the interest of men interested in the manufacture, sale and use of brick. There are four pillars on the west end of this grass plot. The two end pillars are taller than the others, in order to permit the pergola to rest upon the two central pillars and join those at the end in such a manner as to convey the impression that it is imbedded in the crowns of the two outer pillars.

These pillars are constructed of common red brick and are flush jointed with an ordinary lime mortar. The brick are laid in a Flemish bond. At an even height there are two rows of white enamel brick. At the top of the two central pillars are two additional rows of these white enamel brick and to correspond with them there is one row of similar brick in the outer pillars. At the top of these last mentioned pillars are stone slabs harmonizing in color with the white enamel brick.

## Slight Decline in Frisco Building.

San Francisco, May 19.—Building operations for the month of April fell somewhat behind that of the previous months. Stated in the figures tabulated from the permits issued and contracts filed the record is as follows: Brick and concrete, \$840,176; frame, \$902,555; alterations, \$178,825 making a total of \$1,921,556 for private work; to this is added \$221,131 for city building construction, \$71,686 for street work, \$217,036 for state work and \$8,700 for United States government construction within the city limits; also there is \$280,790 of work on the Panama Pacific Exposition, making in all a total of \$2,795,350 for the month. April, 1913, figures total \$3,327,584.

Generally speaking the month of April has usually been a pretty good one for the building business. Comparing the figures for the past ten years, the record shows more than an average of \$2,000,000.

## Memphis Retailers Hopeful.

Memphis, Tenn., May 19.—Retailers here report that while building operations are progressing slowly, there has been noticeable recently quite a little activity in various sections of the city. A large number of plans have been completed recently and permits for the construction of the buildings should soon be issued.

The cement business of the Tri-State Builders' Supply Co. is holding up very nicely, an order for 30,000 barrels of "Kosmos" having been filled for the Illinois Central Railroad.



# News of the Trade

## Falling Off in Building.

Statistics Show Loss of 23 Per Cent When Compared With April of 1913—Big Gain in Few Cities.

The totals of building operations throughout the country for April do not make a very good showing, but when one takes into consideration the tremendous activity in construction during the past ten years it is not so bad. Permits were taken out in seventy-seven leading cities in April according to official reports to Construction News for the erection of 22,001 buildings at a total estimated cost of \$59,905,977 as against 23,055 buildings involving a total cost of \$76,668,943 for the corresponding month a year ago, a decrease of 1,054 buildings and \$16,762,966, or 23 per cent.

The larger cities, the south and Pacific coast show the most conspicuous losses, while the leading cities in Ohio have made remarkable gains over the corresponding period a year ago, indicating most wonderful prosperity. Otherwise the gains and losses are intermingled to a considerable degree, the losses exceeding materially the gains. The figures in detail are as follows:

Cities.	No. of Bldgs.	Estimated Cost.	No. of Bldgs.	Estimated Cost.	% Gain.	% Loss.
Chicago	570	\$10,167,900	1,359	\$12,329,000	..	17
New York (Horus. Man. and Bronx)	480	6,809,743	523	9,547,451	..	38
Boston	546	5,471,000	442	6,160,000	..	11
Philadelphia	1,843	3,075,905	1,692	3,689,615	..	16
Cleveland	1,588	2,594,115	1,318	1,850,965	37	..
Minneapolis	890	1,912,200	148	2,093,215	..	5
Los Angeles	1,013	1,898,304	1,707	5,047,065	..	69
San Francisco	558	1,707,064	309	3,132,029	..	45
Milwaukee	552	1,853,040	641	1,798,110	..	24
Seattle	986	1,287,020	948	840,580	..	46
St. Paul	374	1,204,759	312	926,150	30	..
Pittsburgh	390	1,158,325	395	1,057,769	9	..
Albany	559	1,156,295	511	450,100	132	..
Rochester	454	1,156,109	456	1,229,772	..	5
Indianapolis	764	1,038,716	661	1,531,060	..	32
Cincinnati	1,508	954,423	1,344	693,305	39	13
Toledo	328	771,144	304	885,315	..	13
Portland, Ore.	605	769,506	702	2,887,885	..	67
Newark	384	754,142	357	1,842,278	..	50
Kansas City, Mo.	354	725,665	519	1,365,745	..	42
Columbus	478	685,555	1,046	774,121	..	41
Akron	319	659,030	314	1,119,380	..	61
Baltimore	410	635,315	371	1,626,014	..	48
Atlanta	325	629,444	306	459,805	..	29
Omaha	154	593,025	139	575,065	..	32
Richmond, Va.	143	557,121	139	495,141	30	..
Worcester	198	485,174	194	493,059	9	..
Youngstown	160	470,023	123	266,149	64	..
Allentown	101	466,270	97	343,890	25	..
Louisville	298	451,830	312	510,690	..	11
Springfield, Mass.	160	450,460	179	508,000	..	11
Duluth	110	449,421	154	290,341	..	69
Dayton	149	421,200	13	18,300	2,314	..
Memphis	388	420,085	375	285,929	46	..
Oakland	300	405,340	343	235,176	..	36
Erie	128	399,163	140	587,368	..	24
New Bedford, Mass.	141	392,150	123	246,350	58	..
Norfolk	63	306,182	91	478,456	..	26
Trenton	146	305,906	145	332,703	31	..
Berkeley	116	303,350	83	235,900	36	..
Paterson	118	298,448	71	149,785	95	..
Wilmington	..	286,056	..	325,084	..	14
Utica	79	277,005	104	277,739	..	29
Nashville	101	258,505	65	497,360	..	29
Davenport	116	255,648	55	321,200	..	29
New Haven	116	249,485	123	399,935	..	37
San Diego	208	240,805	248	776,550	..	69
Passaic	65	239,962	46	88,690	170	..
Cedar Rapids, Ia.	47	237,700	39	168,000	41	..
Chattanooga	207	219,490	225	117,900	86	..
Holyoke	21	219,097	30	107,960	103	..
New Orleans	..	218,350	..	251,734	..	13
Peoria	74	202,650	75	273,101	..	33
Elizabeth	59	193,774	10	170,556	13	..
Schenectady	105	181,812	115	363,971	..	47
Lawrence, Mass.	39	190,960	44	187,740	9	..
Des Moines	..	181,178	84	265,835	..	31
Evansville	164	179,717	145	448,406	..	59
Padena	145	156,425	158	806,904	..	24
Grand Rapids, Mich.	183	135,984	210	375,778	..	71
Altoona	118	130,107	145	136,889	..	20
Tampa	152	125,260	145	140,874	..	11
Charlotte	44	124,160	47	117,830	5	..
Tacoma	147	105,203	180	160,750	..	31
Hoboken	70	105,273	22	59,839	76	..
Saginaw	64	93,555	40	39,045	5	..
Reading	63	87,200	58	117,375	..	23
Wilkes-Barre	45	86,194	85	139,369	..	34
Portland, Me.	40	85,090	72	268,689	..	68
San Jose	14	83,094	57	53,313	55	..
Springfield, Ill.	58	79,015	78	115,260	..	31
East St. Louis, Ill.	57	76,745	37	39,972	97	..
Topeka	34	69,575	60	100,226	..	20
Colorado Springs	34	60,000	36	18,925	217	..
Savannah	47	45,360	47	120,350	..	63
Troy, N. Y.	39	37,333	76	44,874	..	13
Pueblo	27	30,925	23	15,300	16	..
Totals	23,055	\$59,905,977	22,055	\$76,668,943	..	23

There were decreases in 44 cities and gains in 30. The city of Cleveland, to the activity of which attention has heretofore been called, had a notable increase—37 per cent; Pittsburgh, 9; Cincinnati, 39; Youngstown, 64; Allentown, 25; Dayton, 2,214; Memphis, 46. Otherwise the cities in which there were increases are scattering—St.

Paul, 30 per cent; Seattle, 46; Albany, 130; Atlanta, 46; Omaha, 3; Richmond, Va., 32; Worcester, 2; Duluth, 57; Memphis, 46; New Bedford, Mass., 58; Trenton, 31; Berkeley, Cal., 23; Hoboken, 76; Paterson, 95; Passaic, N. J., 1,701; Elizabeth, 13; Cedar Rapids, 41; Chattanooga, 86; Holyoke, 103; Lawrence, Mass., 2; Charlotte, 5; Saginaw, 76; Portland, Me., 55; East St. Louis, 97; Colorado Springs, 217; Pueblo, 102.

New York had a loss of 32 per cent; Philadelphia, 16; Boston 11; Chicago, 17; Minneapolis, 8; Milwaukee, 24; Indianapolis, 22; Louisville, 11; Baltimore, 61; Toledo, 12; Newark, 57; Kansas City, 40; Columbus, 11; Akron, 41; Norfolk, 36; Wilmington, 14; Nashville, 39; Davenport, 20; New Orleans, 13; Peoria, 23; Schenectady, 47; Troy, 15; Rochester, 22; Des Moines, 31; Grand Rapids, Mich., 61; Altoona, 20; Reading, 25; Wilkes-Barre, 34; Portland, Ore., 66; Springfield, Ill., 31; Topeka, 30; Savannah, 63; Los Angeles, 62; San Francisco, 45; Portland, Ore., 66; Oakland, 36, and San Diego, 69.

## Small Demand in Louisville.

Retailers Are Not Receiving Amount of Business Expected—Large Operations Scarce.

Louisville, Ky., May 19.—Builders' supply men in Louisville just at this season are dealing in chief with the smaller contractors who are engaged in the erection of small residences, a large number of which are going up in this territory. Business otherwise is quiet, very much in a hand-to-mouth condition, it is reported, but with some good prospects in the way of the erection of a new school house in the city, to pay for which a \$1,000,000 bond issue has been floated.

None of the dealers is especially pleased, however, with the amount of business he is getting at present. An indication of the total volume is shown by the fact that since the first of the year, out of the building permits issued from the office of the City Building Inspector, only eight have been for residences which were to cost more than \$5,000.

Those concerns which are in position to handle small lots with profit express satisfaction with the volume of business they are handling; though others which specialize in high grades of face brick are inclined to a pessimistic view of conditions.

Dealers are looking forward hopefully to a settlement before long of the differences between the state authorities and fire insurance companies which have withdrawn from the state. No foreign companies are writing any new business and their representatives insist that they will not as long as the laws of the state remain detrimental to them. It is apparent that few people will build houses which they cannot safeguard against loss from fire, and while the condition is not emphasized prominently, it undoubtedly exerts a pronounced underlying influence. This is one reason advanced for the failure of an unusually large number of preliminary plans on architects' boards early in the season to develop into actual operations.

The Tyler Building Supply Co., which recently took on the local agency for several brick manufacturers, is just completing its new display room, the second new one to be installed in the city. Besides the customary panel device, the company is displaying certain grades in connection with a window seat. Business is up to reasonable expectations, it is reported. Isaac Tyler, president, was in Cleveland, O., for two days last week attending a

meeting of the board of directors of the National Paving Brick Manufacturers' Association.

The Union Cement & Lime Co. is getting considerable business in small lots as a result of the new display room it has set up in the Starks Building, where it has on display the various brick manufactured by the Hydraulic Press Brick Co. L. M. Parsons, manager, is paying particular attention to the school building program and is reasonably confident that he will land his share of the contracts for face brick. Three of the eight residences going up in this territory at a total cost of over \$5,000 are being supplied by this company.

Business is picking up over what it was last month, according to L. M. Rice, of the Central Paint & Roofing Co. General conditions are not satisfactory, however, Mr. Rice says, and watching the operation of the concerns whose materials are required before the roofs are needed, he cannot see where the company is going to do such a large business as had seemed reasonably to expect earlier in the season.

The Louisville Supply Co. enjoyed a more than satisfactory business early in the season, though the volume is falling off as the season progresses, a condition that is unusual with this company.

The total estimated cost of buildings for which permits were issued last month by the city building inspector is \$58,870 less than in April of last year, the figure for this year being \$451,820. Altogether 299 permits were issued last month against 312 in the corresponding month last year.

## Milwaukee Retailers Active.

Building Operations Ahead of Last Year—Record-Breaking Year Expected.

Milwaukee, Wis., May 19.—The permanent exhibit rooms of the Builders and Traders' Exchange, of Milwaukee, were crowded with people on May 9, when the annual "get-together" and "housewarming" day of the exchange was held. Hundreds of contractors, architects, retailers and prospective builders from all over Wisconsin took advantage of the annual affair. Scores of quality exhibits of every phase of the building trade were on display. One of the features of the exhibit was a "sack morgue," showing the many ways in which sacks are "killed." The exhibit rooms were in charge of E. C. Schumann and A. E. Millies.

Milwaukee retailers, contractors and builders are most interested in the announcement of George B. Ferry, chairman of the Milwaukee building commission, that work on the new building code is progressing favorably and that the code ought to be completed within the next few months. Special attention is being given to those features of the code which will further the work of fire prevention and increase the sale of fireproof construction materials.

Building operations in Milwaukee are at an active stage and a gain of more than \$75,000 was made during the first week of May, as compared with the corresponding period a year ago. Building Inspector W. D. Harper is confident that a new high point in building investment will be made this year. There was a slight falling off during the first four months of the present year, due to the fact that a year ago a permit was issued for the erection of the Hotel Wisconsin, the cost of this building without fixtures being more than \$500,000. During the first four months of 1914 there were 1,186 permits issued for buildings to cost \$3,096,942, as compared with 1,156 permits and an investment of \$3,457,551 during the corresponding period in 1913.

## Chicago Still Tied Up by Strike.

**Few Orders for Materials Being Received—Mayor Acts as Mediator and Settlement Is Soon Expected.**

The brickmakers' strike in Chicago is still on, and as a result of the impossibility to secure common brick all other building materials are suffering. In some instances quantities of culled face brick are being sold in order that jobs may be completed. In other instances, sand-lime brick is being used, both products being sold through the building material retailers.

There is very little cement or other material being moved. Such materials as are sold are for foundation and repair purposes.

Chicago is a great brick consuming city and when it is impossible to supply the demand for brick all other materials naturally suffer, as lime, plaster, and other products cannot find a market until the brick work has been either commenced or completed. Other materials depend entirely upon the brick market for their sale.

It is believed however that conditions will be improved in the very near future. The brick-

the prospects are good for an immediate settlement of the strike.

The open price policy adopted on April 15 by the Chicago Face Brick Association has not been given a great opportunity to show the benefits to be derived from such a policy, on account of the present quietness in the Chicago market; but during the past month members of the Face Brick Association have taken advantage of the privileges of the open price policy agreement and reports are to the effect that as a result of this innovation better conditions will exist in the face brick business and better prices will be secured.

The American Magnesia Products Co. has been organized to manufacture and deal in cement, stone, lime, plaster and other building materials. Arthur A. Sherrard, Frank Bagley and Clarence J. Silber have incorporated the company for \$15,000.

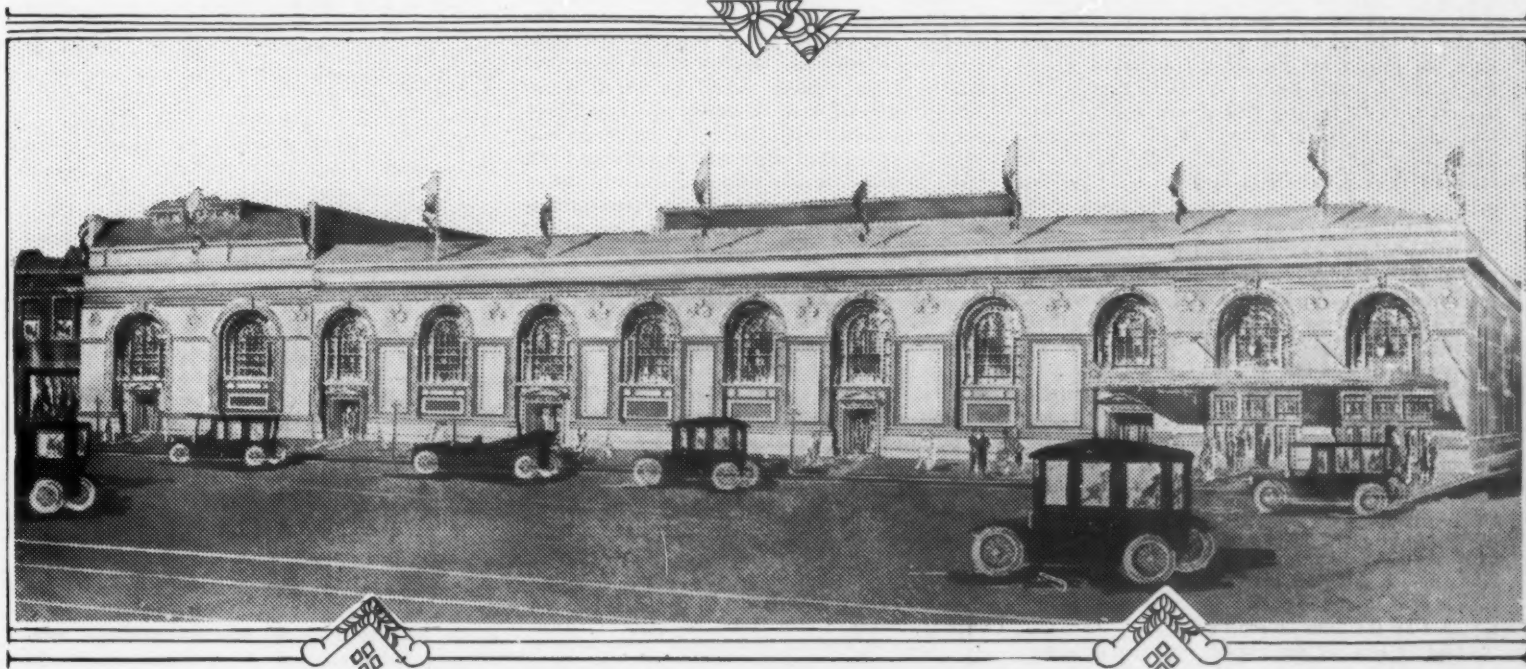
The Crowe Construction Co. has been incorporated with a capital of \$5,000 to deal in building and construction materials and to engage in general construction business. The incorporators are: Harry M. Crowe, John Gilmore, Fred Mexeman.

Associating coal, lumber, ice and building materials, the South Robey Coal Co. has been in-

## Pittsburgh Demand Steady.

Pittsburgh, May 19.—Retailers are taking on business steadily but not rapidly. General business conditions are not such as to promote a boom in any line of business. There is a considerable amount of building coming forward which is bringing orders to the retailers of builders' supplies, but in some sections even this is lacking. A number of industrial towns in the Pittsburgh district are doing finely in this respect. Pittsburgh itself is producing much more trade of this kind than for several years. So much building, however, is being refigured that dealers complain very much about the contracts being slow in getting to them. Street work in considerable quantity is being let and is producing splendid demand for paving brick, sewer pipe and cement. Road contracts have not been awarded in such large numbers or quantities as last year.

The Pittsburgh Builders' Exchange is incorporating under the name of the Builders' Exchange League of Pittsburgh and vicinity. This is likely to be a very strong pulling card for the already big



ARCHITECT'S PERSPECTIVE OF AUDITORIUM PLANNED FOR CHICAGO'S NORTH SIDE. THE STRUCTURE WILL BE USED FOR DANCING, CHURCH BAZAARS, CONCERTS AND OTHER SOCIAL EVENTS.

makers and manufacturers are conferring every day with the object in view of settling the disputes between them. The latest move has been upon the part of Mayor Harrison, who is acting as a mediator in the brickmakers' strike. As result of his efforts an agreement between the contending parties will be reached at most any time.

The City Council appointed a special council committee to investigate the merits of the striking brickmakers' demands. With the aid of this committee, practically every point at issue has been settled to the satisfaction of both parties. The last demand to which the manufacturers refused to concede is a clause in the proposed agreement giving the workmen the right to appeal to their unions in case any one is discharged without sanction of the union. The manufacturers wanted this eliminated. Mayor Harrison in a conference told Mr. Schlake, who is representing the manufacturers, that he thought the union was justified in protesting against the elimination of this clause. Mr. Schlake's reply was that he thought the privilege had been abused in the past. He has agreed, however, to grant the right of appeal provided certain words of interpretation were added to the clause in question. According to Alderman Martin J. Healy, chairman of the special council committee,

incorporated with a capital of \$10,000 by John Veverka, Peter Stes and Joseph Story.

### North Side to Have Mammoth Auditorium.

Chicago's North Side is to have a new colossal auditorium which is to be built on Sheffield avenue near Belmont avenue, at a cost of \$125,000 and is to be used principally as a dancing palace.

George W. Stewart, a prominent north side builder who has erected many stores and apartments in Chicago, is behind the project which is to be built exclusively of fire proof material. It is planned to have the auditorium with a seating capacity of 7,000 and the building will be so arranged that it may be used for theatricals, church bazaars, conventions, etc. The building will cover a tract of ground 250x125 feet. Part of this tract has been purchased outright and the remaining 150 feet have been acquired by a 99-year lease.

The exterior of the structure is to be finished in white enameled brick and white glazed terra cotta with verdi green trimmings. It is contemplated that work on this structure will be commenced within the next month.

No name has been given the auditorium and none will be considered until the opening night at which time a prize of \$500 will be offered for the most suitable name.

exchange which has headquarters in the Fulton building.

The Houston Brothers Co. is very busy but not rushed in most of its operations. Its brick plants are very busy. Trade in general is good and the company's officials are inclined to think that it will get better as the summer wears on.

The Wheeling Plaster Company has started work on a new plant at Fulton, W. Va., to be known as the Hamm cement block factory and to be managed by John Hamm.

## Kansas City Dealers Busy.

Kansas City, Mo., May 19.—While the activity of retailers of Kansas City is in some respects more apparent than real, the situation is satisfactory. Business, in fact, is not remarkably good, but all indications point to such a good summer that retail supply men are complaisant over the situation.

Building permits have continued to run well ahead of those of 1913 for the corresponding period. Considering the fact that the forepart of 1913 was not a bad period by any means, the recent volume appears quite respectable. May permits have shown up well, figures for the entire month not being available, of course.



## Builders' Specialties

### Dealer Becomes Acquainted with Himself.

#### Compilation of List for Contest Reveals Variety of Materials Handled.

"I thought I was dealing in nothing but builders' supplies," says one of our correspondents, "until I began to compile my list of materials for the 'Specialty Contest.' Candidly, I never thought that I would get into the specialty end of the business; it didn't appeal to me. But as my customers demanded various materials, I naturally put in a stock and before I realized it the variety of materials I handled was quite extensive. I did not realize until I began to check up what a large number of products may be handled profitably by the builders' supply dealer."

The average builders' supply retailer's experience is similar to that of our correspondent. Cement, lime and plaster are usually the materials which the builders' supply dealer expects to handle. In a short time he realizes that plaster board, metal lath and brick are in demand in his community. The progressive dealer will naturally put in a stock of these materials in order to meet the requirements of his trade and satisfy his contracting and building customers. In the course of time other specialties will be demanded and put in stock.

With a large number of builders' supply dealers, face brick was at first considered a specialty, but being an integral part of building materials, it is no longer looked upon as a specialty but as part of the regular line of building material dealers.

In practically every community there exists a common brick plant, and naturally the common brick is sold direct from the plant to the contractor or builder. It is not to be expected in such instances that the dealer should share in the profits accruing from the sale of such brick. But the dealer has an opportunity to get into the brick end of the business by representing face brick concerns and keeping in his office and warehouse a sample of each of the various kinds of brick manufactured by the firms he represents.

There is also an opportunity for the builders' supply dealer in the sand-lime brick business. Sand-lime brick is not manufactured in every community, and inasmuch as it is necessary to receive such material from out-of-town sources, the logical man to handle sand-lime brick is the building material retailer. Sand-lime brick is usually sold at a price about 25 per cent above that demanded for common brick. Where it is attempted to compete with common brick, the sand-lime product is sold at the same price or very close to it. Even in such instances sand-lime brick brings good prices and naturally places it in regular competition with common brick.

Waterproofing, coal chutes, wall ties and plugs, metal building corners and prepared roofing materials are other materials which can be correctly listed as specialties. This list can be materially added to, inasmuch as there are hundreds of articles which are used in the construction of buildings and which should be sold by the building material retailer.

#### Contest Still Open.

ROCK PRODUCTS AND BUILDING MATERIALS has started a campaign with the sole object of securing as complete a list of building materials and specialties as possible. Manufacturers, wholesalers and retailers are interested in this contest and are lending us every aid in compiling this list. As a mark of recognition and partly to recompense the

dealer for his efforts, we are giving to the retailer who supplies us with the most complete list of builders' supplies a copy of Radford's "Estimator and Contractor." This is a book which should be in the possession of every building material dealer, as its pages will prove to be of the utmost value in consulting with contractors and builders when doubt exists as to the correct cost of constructing buildings of various descriptions.

This contest has been on for the last 30 days and will be open until June 15. All lists must be sent in not later than that date.

Because of the difference of opinions as to what should constitute builders' specialties, we will permit, in this contest, a list of all supplies handled by the builders' supply retailer, such as cement, lime, plaster and brick, as well as materials which are regularly considered as specialties. Using the regular names as headings under which to list the materials you handle, follow them by the trade names of the particular brands that you carry; for example, under cement, might be listed Atlas, Lehigh, Universal, etc. Whatever the brand happens to be, mention it after the name of the material. In the contest each brand so mentioned will constitute the name of a material. We will use as the basis of this contest the trade names of materials rather than the regular department names. List each material in a separate line and follow it with the trade names, for example:

Cement—Atlas, Lehigh, Universal.

We want every building material dealer in the country to take part in this contest, and the only requisite that we demand is that the contestants are subscribers or employees of subscribers to ROCK PRODUCTS AND BUILDING MATERIALS. Our sole object in promoting this contest is to secure for the trade as complete a list as possible of builders' supplies and specialties as may be procured. It is hoped that the dealers will restrict themselves to materials handled and sold by their company. If a company represents a manufacturer for whom they have sold nothing but still act as agents, such articles will be considered as materials handled by the company.

### Explains Proper Use of Metal Lath

C. O. Powell, of the North Western Expanded Metal Co., Chicago, Ill., in a recent interview made clear the correct manner of the application of stucco over metal lath, stating the causes of failures which have been noted in some instances where metal lath was used.

"The question is often raised," said Mr. Powell, "as to the permanence of stucco when applied over metal lath. In every locality there are to be found contractors who are doubtful of the value of metal lath, and who prefer not to use that material through fear of a failure that would injure their reputation as successful builders. There have been, and no doubt will be, failures of stucco on metal lath, but in every instance that we have investigated, these could have been avoided by using proper material in a proper manner. There have also been instances of failures of brick, steel and wood constructed buildings, yet no one would think of condemning the use of those materials on that ground. Why not give stucco on metal lath an equal benefit of the doubt?"

"Failures of stucco that can be traced directly to the metal lath used are due to one of the following reasons: In order to save a little in the cost of the lath, a light weight (27 gauge) lath

unprotected by painting or galvanizing is used. This material is so very thin that the least bit of corrosion will destroy it. Nothing lighter than a 24-gauge painted lath weighing not less than 3.4 pounds per square yard should be used. The painting insures the material reaching the work in first-class condition, as well as protecting it after it has been plastered.

"One of the best means of protecting metal lath is to have it completely imbedded in the stucco. For this reason a lath that does not cover well on the reverse side is apt to cause a failure on account of being attacked by corrosion. 'Kno-Burn' expanded metal lath has a small mesh which is so shaped that the plaster flows over and around the strands, completely imbedding them. Two-coat stucco work seldom proves satisfactory because it is so thin that it is bound to crack, yet this cracking in two-coat work is often blamed upon the metal lath."

### Fertile Field for Prepared Roofings.

#### Consular Agent Declares That Modern Material Is Needed in Colombia.

There is a fertile field in the district of Choco, Colombia, for manufacturers of roofing materials. Consular Agent Louis G. Dreyfus, Jr., located at Quidbo, has investigated the situation in that country and submits some valuable information to the roofing trade in the following paragraphs:

"Only two classes of roofing are at present used on buildings in the Choco—thatched palm leaves and corrugated iron sheets. In the country the houses of the natives are almost invariably thatched with palm leaves, while in the villages the houses and stores of the well-to-do class are covered over with corrugated iron sheets which overlap. The palm-thatched roofs have a tendency to leak, while the iron roofs not only rust in a comparatively short time, because they are seldom painted when put on; but they also cause intense heat within the buildings during daytime. There are no tarred, asbestos, or any other prepared roofings in use in Quidbo today.

"These conditions should create a good market in the Choco for prepared roofings. The fact must not be overlooked that the temperature usually reaches 94 degrees Fahrenheit daily in the shade; also that the rainfall is excessively heavy. American manufacturers desirous of taking advantage of this possible market should communicate directly in the Spanish language with the principal merchants of this district, whose names can be obtained from the Bureau of Foreign and Domestic Commerce, Washington, D. C., and its branches and also with El Padre Prefecto, La Cathedral, Quidbo, who is in charge of the erection of a convent for the church at Quidbo. Mention should be made of the advantages of the roofing as regards its durability, its powers of resistance against the tropical sun and excessive rains, and its reduced cost as compared with corrugated iron, which sells wholesale at 80 cents to \$1 per sheet, 7 by 3 feet, in Quidbo. The mere sending of catalogues will be of no value in obtaining a foothold in this market, but a well-written Spanish letter accompanied by catalogues in Spanish and samples might bring re-

#### FORT DODGE GETS ROOFING FIRM.

Superior railroad shipping facilities have secured for Fort Dodge, Iowa, the Wright Roofing and Manufacturing Co., which has been established at Perry, Iowa, for the past 26 years. They do general contracting and manufacture prepared roofing materials. They will immediately arrange for a warehouse where they can manufacture and store their own material. For the present the office of the company will be at the Duncombe hotel where Ed. F. Wright, president of the firm, and his family are now located.

## Nebraska to Have Good Year.

### Purchase of Building Materials Light at Present, But Record-Breaking Fall Expected.

Lincoln, Neb., May 19.—“In regard to business in Nebraska,” says I. J. Weatherford, of the Nebraska Materials Co., “I think that an expression I heard a traveling man use in talking with another one a few days ago just about fits the situation here in Nebraska. His friend asked him how business was and he replied, ‘Spotted.’ From what we can hear it is this way all over the state and in every line. However, the Nebraska Material Co. is running ahead and we are selling more material than ever before. So far we have been able to get good prices, but the tendency of some dealers this spring, on account of business being a little slack, has been to cut prices; and we have been pretty busy keeping everybody from throat-cutting.”

“The present indications are that business throughout the state is not going to be very heavy until after wheat has been threshed and corn assured, but we really expect the fall business to be the heaviest in the history of the state. There is plenty of money in this country, and no excuse for people not building, but this is a corn state, and it makes no difference how much wheat, alfalfa, etc., a farmer raises in Nebraska, if his corn is no good there has been a failure. They make their living off of wheat, alfalfa, etc., and their spending money comes out of corn; so they feel that if they do not have a heavy corn crop they cannot make any improvements.”

The Nebraska Material Co. is just completing a new two-story fireproof building, 50x142 feet. One-half the lower floor is now being used for offices and sales room. The entire building will be ready for occupancy in two weeks.

## Portable Storage System.

### Invention Saves Material and Labor in Handling of Cement, Sand, Gravel and Crushed Stone.

Retailers, concrete contractors and road builders will appreciate the portable storage system for handling cement, sand, gravel and crushed stone illustrated herewith.

The storage and handling of these materials in construction work frequently becomes a serious problem.

Cement must be stored in a house or under cover where it will not be damaged by the weather. The sacks must be paid for by the contractor, who is allowed a pro rata amount for the sacks returned in good condition. In addition to the cost of opening sacks there is usually a loss through injury and the additional expense of cleaning, bundling up and transportation charges back to the manufacturer.

Crushed stone, gravel and sand can, of course, be piled up on the ground. This means placing of planks which are usually no good thereafter or else a certain amount of loss due to material working into the ground. There is also frequently more or less bother and confusion climbing over these piles and certainly considerable expense in putting into the piles and rehandling to get material to the mixer.

By using the Weller portable storage system, cement can be purchased in bulk, thus effecting a considerable saving in original cost and dispensing entirely with the cost of opening, cleaning and returning sacks. The entire car load of cement is elevated and stored in the cement bin, which is built so there is no danger of damage from rain or other inclement weather conditions.

Likewise the other materials are stored in their respective bins, each having a capacity of one car or more as desired and then spouted to the mixer as required. For batch mixing a certain sized measure can be fitted to the different chutes or the material can be spouted into the batch hopper.

For continuous mixing, automatic feeding devices can be attached to the spouts, regulated to deliver varying amounts from the different bins at the same time.

By this arrangement maximum capacity can be reached as the unloading from cars can be accomplished at the most convenient time and a large supply of material is constantly on hand and available by simply operating a lever.

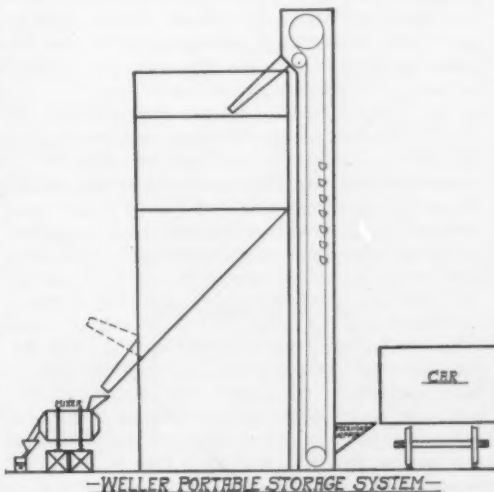
After finishing one job the equipment can be taken down, shipped to another point and quickly reassembled. The machinery can be operated by motor, gas or steam engine or any other available power.

These storage systems can be built all steel, or all wood, or a steel frame with wood bins, etc. The design and mechanical equipment is the product of the Weller Manufacturing Co., of Chicago, Ill.

## Conditions Improved in Philadelphia.

### Warm Weather Brings on Activity of Contractors and Builders—Retailers Securing Orders.

Philadelphia, May 19.—The slack times in the building circles has not been due to business depression, as was generally conceded by the public and the trade, but has been caused by the bad weather conditions. In all parts of the country



the same thing holds good. With the coming of more settled weather there has been a decided increase in the amount of raw material consumed and the numerous requests which the dealers are receiving from contractors in regard to the price and delivery of material to be used in building operations and construction work in and around Philadelphia.

A representative of Murphy & Co., when interviewed, said: “We are doing practically nothing. Business appears to be at a standstill.”

Brenan Sand Co.: “Our product is bar sand, which is mined and used by us. We’ve had several inquiries from the various contractors, but our material was not just that which they wished, so we have had to turn them down. Business is very good.”

Jacob L. Tyson says: “Business was never any better than at the present time. I am furnishing material for the following large building operations: Ninth and Shunk, Second and Ritner, Front and Ritner, 1422 North Broad street, 1432 South Penn Square and the Girard Apartments. There are also numerous small jobs which keep us very busy.”

DeFrain Sand Co.: “While we fell far behind during the first three months of this year, namely, January, February and March, business is now forging ahead and will in a short time assume normal aspects.”

Charles Warner Co.: “Taken as a whole, we have no cause to complain. With several big jobs in sight, inquiries which have not materialized, the outlook is quite bright.”

## John C. Driscoll Passes Away.

### Ithaca Contractor and Retailer Had Successful Career and Was Well Liked.

John C. Driscoll, one of the foremost and most highly respected men in Ithaca and one of the best known contractors and builders’ supply retailers in that section of New York state, died unexpectedly about 9 o’clock Sunday, May 3, at his home in Ithaca.

Mr. Driscoll had been in poor health about three months, but a week or two before his death it was thought that his condition was materially improved. He was down town several times during the week and only the night before his death he attended a public concert. His death was due to hardening of the arteries around the heart.

John C. Driscoll was born in Ithaca 54 years ago. He was the son of William Driscoll, one of the early residents of Ithaca who settled on East Hill, then a sparsely populated neighborhood. When the elder Driscoll died his son John was about 14 years old and a few years later he went to work, learning the carpenter’s trade. Later Mr. Driscoll also learned the trade of mason, with the result that he was well equipped for the larger things in the construction line that were to follow.

About 1880 John and his brothers Patrick and William formed the partnership originally known as Driscoll Brothers. At first the new firm confined their operations for the most part to masonry and paving jobs. One of the first jobs was the construction of the first agricultural barn of Cornell university.

With this as a stepping stone, they gradually increased their business and in 1885 established an office and warehouse on Tioga street. In 1896 they purchased of George Small a planing mill, lumber yard and building supply business situated on the corner of Tioga and Green streets. In the following year they purchased the planing mill, lumber yard and supply business of the late Holmes Hollister, situated at 134-136 South Aurora street. The business from its infancy showed an increase, and the building supply business has now reached such a point that in the past five years they have been compelled to increase storage capacity, and have built the office building at 135-137 South Aurora street and warehouse at the same locality.

While the contracting end of the business has been large, it is practically a side line, as this firm wholesale and retail to the community, and have at the present time salesmen on the road selling to the retail trade.

As an idea to the extent of the business, car records show approximately two cars per day during the busy season, and an average of a car and one-half per day for the year. This material is distributed practically within a radius of 20 miles of Ithaca.

The history of the life of John C. Driscoll is so closely identified with the history of the firm that one cannot be told without relating the other. His growth was the firm’s growth and as the firm underwent that transition from the small operations of three hard working but comparatively obscure young men to the million-dollar company of today, so did John Driscoll change gradually from the striving youth to the successful and highly respected man of achievement. He never ceased to strive, and the magnificent new Ithaca High School took shape and almost reached completion under his personal supervision, or until he was forced by ill health to cease his labors.

Mr. Driscoll is survived by his wife, three daughters, Julia, Alice and Cecelia, and two sons, Raymond and Harold. He is also survived by three brothers, Patrick, William M. and James A. Driscoll, and two sisters, Mrs. James Lynaugh and Mrs. Margaret M. Mone, all of Ithaca.

The funeral was held May 5 from the Immaculate Conception Church, of which the deceased was a lifelong and prominent member.



## CHICAGO CRUSADERS INVADE THE SUNNY SOUTH.

(Continued from Page 41.)

oratory which had been a feature of each stop. Not that I personally do not enjoy the discussion of public questions from the forum, but when it comes to a continuous performance for six days, it can easily be spared on the seventh.

### Savannah Growing Rapidly.

We left Augusta at midnight, and Monday morning found us in Savannah. This city is the one place on our trip where the spirit of the "old" and that of the "new" south seem to be blended in perfect harmony. Savannah is growing with remarkable rapidity and opening up subdivisions in the surrounding suburbs on a scale seemingly equal to that of Chicago. This is probably exaggerated, but it surprised us to the extent that the comparison came to mind instantly.

I had a pleasant chat with Col. John G. Butler, of the John G. Butler Building Supply Co., and his remarks only strengthened the impression I had gotten in other cities of the remarkable activity in building industry throughout the southeast.

### Jacksonville Rebuilt Since Fire of 1901.

Monday afternoon found us in Jacksonville. This city has much in common with Chicago, because in 1901 practically the entire business section was destroyed by fire and the city has been entirely rebuilt since that time, along modern lines. They call themselves there, the "Little Chicago of the South," and the name is well taken for we saw much to make us think of home in the way of business activity.

Mr. Baker, of Baker & Holmes, told me that Jacksonville is indebted to Chicago capital for the efficient freight handling, storage and transfer station which is doing much for the city. This building is four stories high, 660 feet long and 200 feet wide, and was erected at a cost of \$850,000. It is used largely as a clearing house for wholesale firms in all lines.

Our next stop was Macon. Here we saw numberless examples of the style of architecture for which we had been on the lookout. I refer to the old colonial mansions, with which our ideas of the south are associated. I do not refer to the age when I say "old colonial"—I refer to the style, because the hills of Macon are studded with many of these homes. What particularly impressed us was their size. We saw more residences running between \$10,000 and \$25,000 in Macon than at any other stop. This fact alone gives an excellent idea of the commercial progress of this city.

Macon has a complete automobile fire department. It has several blocks of concrete paving, which was placed about two years ago and which is in perfect condition. At the present time they are building a \$100,000 apartment house, a 12-story bank building, and a new \$1,000,000 station is to go up at the foot of Cherry street.

For a city of 60,000 population, with 40 per cent colored, this is a splendid record. This population, by the way, is three times what it was in 1885.

We reached Columbus at 3 o'clock in the afternoon. Here is another city with every evidence of progress.

Ten years ago ox teams were common sights and wood-burning locomotives were used exclusively in the railroad yards. The streets of Columbus are particularly impressive. They are all unusually wide with double rows of trees in the center and roadways on either side. Columbus has the atmosphere of the "old" south, but the energy of the "new."

I secured much information in Macon from T. E. Artope, one of the leading builders' supply men, and in Columbus from William Beach, of the William Beach Hardware Co. They both told

me that building conditions were in a very encouraging state in that section.

The morning of April 22 found us in Atlanta, the Chicago of the south. We were met at the train by a delegation from the Chamber of Commerce, headed by Col. F. J. Paxon. Arrangements for our reception were cleverly planned and perfectly executed. Each Chicago man was assigned to an Atlantan of kindred business interests. I had the pleasure of being entertained by V. H. Kriegshaber, one of the leading builders' supply dealers of Atlanta, as well as one of her leading public-spirited men.

The entire morning was given over to sight-seeing. I do not think we overlooked anything. We reached the Capitol City club at 1:30 and the speedometer of our machine registered 56 miles.

While in Atlanta, I made the acquaintance of a number of builders' supply firms, spending an hour with Mr. DeJarnette, of the R. O. Campbell Coal Co., and he, as well as Mr. Kriegshaber, had nothing but hope to offer for the future of Atlanta and for present building conditions.

Atlanta is fortunate in its location. It is within 12 hours' ride of practically the entire southeast. Its climate is ideal and conditions for further growth perfect.

On Thursday we spent the morning in Montgomery and the afternoon in Mobile. Montgomery is another city where the automobile fire department seems to be much in evidence. We had no sooner gotten off the train than we saw a hook-and-ladder automobile go by us at the rate of 60 miles an hour. One of the Chicago men remarked that the automobile has divided the nation into two classes, "the quick and the dead."

While in that city I had a visit with Mr. Davis, of the Montgomery Lime & Cement Co. He was very optimistic regarding building conditions, but at the present time there is not so much work in view as might be hoped.

### Mobile Energetic City.

Mobile is not only a beautiful city, but an energetic one, and probably is in better shape financially than any other city bordering the gulf. It is the center of the Satsuma orange industry. Over 2,000,000 trees have been planted this season and it is estimated that in 1918, the income from these trees will be over \$7,000,000.

Mobile will probably develop faster in the next decade than the majority of southern cities, because the opening of the Panama canal will make it a much more important port. The distance from Mobile to Colon, Panama, is less than from any other port in the south.

Friday was spent in Birmingham. When I tell you that Birmingham has increased in population 250 per cent during the past ten years, it gives you a good idea of what they are doing down there. They can reach out with one hand to Red Mountain, where there is enough iron ore to last more than 150 years at the present rate of mining. With the other hand, they can reach enough coal to last an indefinite period. Two million tons of iron are manufactured annually. Birmingham has cotton, coal, clay and cement in abundance and its future cannot be prophesied. There is no doubt but what it is the center of the most remarkable mineral region in the world. In the building line, Birmingham has been doing much. They recently built a 27-story office building and the American Steel & Wire Co. opened up a new plant there only a few weeks ago. I found the builders' supply business in probably as flourishing a state as in any city we visited. J. F. Baldwin, of J. F. Baldwin & Co., was enthusiastic over the prospects for this year.

Nashville was the last stop we made, and we had the opportunity of getting a comprehensive idea of the commerce of this city by going through the permanent exhibition rooms of the Nashville Commercial club, which fills five floors with Nashville-made products.

T. M. Hughes, of C. M. Hughes & Co., who is in the builders' supply business, acted as my pilot, and the gist of his conversation was the future of Nashville. I found this same spirit throughout the city and before we left, we were given a cordial invitation to come again and as salesmen.

It was fitting that the last day of our trip should end at "The Hermitage," the home of Andrew Jackson. This mansion is kept up by an organization of women known as the Hermitage association. All of the rooms are just as they were left by General Jackson. After we had viewed the inside of the mansion, we went out into the old garden and uncovered before the grave of that grand old warrior-statesman. About five feet from his tomb is another grave with this inscription—"Here lies Uncle Alfred, the faithful body-servant of General Jackson, who died in 1901, aged 98 years."

### Possibilities of the South.

This article would be incomplete without giving a general view of the situation as we found it in the southeast.

In the first place, it must be borne in mind that at the close of the civil war the south was impoverished, their plantations in ruins, and the flower of southern manhood either dead or broken in spirit. Before the south could expect to progress with any great rapidity, it was necessary to grow a crop of men. These few facts show the causes for the awakening of the south during the past few years.

We dare not prophesy, except in general terms, the possibilities for the next decade. I do believe, however, that the southeast is the land of opportunity and that it will grow much faster during the next ten years than any other section of the country. The agricultural possibilities are wonderful. All they need is the application of modern, scientific farming methods and a more thorough introduction of up-to-date farming implements.

The south has natural mineral resources in abundance. There is no section of the country which has the quantity of all the raw materials needed for practically every industry, as the southeast, such as cotton, coal, iron, granite, sulphur, marble, oil, gas and phosphates. Take these as a basis and imagine what the manufacturing possibilities are.

If the South were populated per square mile to the same extent as the average square mile of Ohio, Pennsylvania and Massachusetts, it would have a population of over 150,000,000 persons. The time is not so far off, when this will be an actuality, for during the past ten years, the increase in population in the southern states has been over 69 per cent. I have before me the record of 11 cities which we visited and I find that in factory products the increase has been 113 per cent and in population 63 per cent.

A few centuries ago, the spirit of adventure led a few hardy sailors across the Atlantic in search of the "Fountain of Youth" and for the "El Dorado," where human happiness and unbounded wealth was to be found. During the coming centuries, I predict that this same spirit will carry men from all quarters of the globe to this sunny south-land and that the hopes and desires of those old adventurers will be realized.

The possibilities are there and they only lack a little more money, a few more persons and a little more time to develop them.

### NEW MATERIAL AT KANSAS CITY.

Kansas City, May 19.—A new product in building material is being introduced here by H. S. Ashenhurst, who is at the head of the A. & M. Asbestos Co., manufacturers of asbestos stucco, building blocks and plaster. Mr. Ashenhurst claims that he is finding a ready market for the material wherever it has been introduced.

# CONTRACTORS' BONDS AS SUBSTITUTES FOR MATERIALMEN'S LIENS.

(Continued from Page 41.)

the writer is inclined to think cannot be overcome. On account of these various difficulties, all legislation on this subject has been simply a swinging back and forth of the pendulum between alternate evils—between laws that seem to favor unduly the materialmen and those that seem to favor unduly the owner. It is no surprise, therefore, to find, for example, that while, in the state of Georgia, an attachment law enacted in 1799 has served all needs for more than 115 years with not over half a dozen amendments, there have been no less than 49 acts relating to the protection of materialmen. The same is true in greater or less degree in practically every other state. In Kentucky there have not been less than 77 attempts to enact a satisfactory materialmen's lien law.

Conceding that the securing of materialmen affects to a large degree the general welfare, and that the theory on which all modern lien laws are based—the impounding of the contract price in the hands of the owner—is largely impracticable, it becomes an important consideration to find a substitute.

Toward the accomplishment of this end, certain legislation of the state and Federal governments during the last 20 years, and the practice of the bonding companies of the country, offer valuable suggestions.

In 1894 the Federal government enacted a law requiring persons contracting with the government for public work to incorporate in their bond, conditioned for the faithful performance of their contract, an additional obligation that he would make prompt payment to all persons furnishing labor and material in the execution of the contract, and giving them a direct right of action on the bond. The considerations underlying this legislation were doubtless, first, the providing of a substitute for the ordinary lien, which does not exist against public property; and, second, to avoid the moral wrong of the government taking the supplies and labor of sub-contractors and materialmen when their claims had not been settled by the principal contractor. That legislation has proven a marked success, and

its results have been excellent in every way. In 1905 the original act was amended, defining more clearly the rights of the respective parties under the bond and the proper procedure to enforce them. In 1899 the state of Tennessee enacted a similar statute, with the additional provision that the failure of the public officer in charge of the work to exact such a bond should constitute a misdemeanor. In 1910 the legislature of Georgia passed a similar bill, introduced by the writer, who was then a member. In its final form there was no provision for criminal liability for default in exacting the bond, which was left to stand upon the basis of ministerial duty. In 1903 a like act was passed in the state of Oregon.

In 1894 the legislature of the state of Louisiana enacted a law which carries the idea one step further. By it the private builder was required, upon the penalty of subjecting himself to a direct personal liability to materialmen and sub-contractors, to exact from the principal contractor a bond with approved security, conditioned to promptly pay the bills of laborers and materialmen, who were given a direct right of action on the bond. The far-reaching significance of this act lay in the fact that it applied the idea embodied in the Federal act of 1894 to the owners of private property. It was operative only in cities having more than 50,000 inhabitants, which confined it to the city of New Orleans. In 1896 it was amended to include cities having more than 10,000 inhabitants. In 1906 and in 1908 its scope was further enlarged; and by the act of 1912 its operation was made general throughout the state, the only limitation being that the contract should exceed \$1,000. When it is remembered that the life of the average lien law is not more than four or five years, the comparatively long period that this system of securing materialmen has continued and its gradual extension seem strong evidence of its satisfactory working. Moreover, the testimony of materialmen, bonding companies and attorneys in Louisiana is that it has proven a distinct success.

In considering whether the Louisiana statute offers a solution of this vexed problem, an important circumstance to be noted is that the bond required is to a great extent the same that the surety companies of the country have been writing for contractors in favor of private builders for a

number of years, and with generally satisfactory results. This latter bond, on which a premium of  $\frac{1}{2}$  of 1 per cent of the contract price is charged, is conditioned for the performance by the contractor of his contract, and the delivery of the structure erected by him free from all liens. In most states it has been decided that this bond, being a contract between the owner and the contractor, sub-contractors and materialmen not being parties thereto, have no right of action upon it. In other states a contrary rule prevails. In the latter the practical effect of this bond when given is that of the Louisiana statute. In giving to sub-contractors and materialmen a right of action on the bond, the Louisiana statute seems but a natural evolution, and effectuates the real intent and spirit of the voluntary bonds. It is significant that in Louisiana all the bonding companies in the United States are writing these statutory bonds for the same premium as the voluntary bond when the penalty of the bond is less than or equal to one-half the contract price, that is, for  $\frac{1}{2}$  of 1 per cent on the whole contract price. Where the penalty of the bond exceeds one-half of the whole contract price, the premium is 1 per cent of the penalty of the bond, and where the penalty of the bond is greater than the contract price, the premium is 1 per cent of the contract price.

In its practical operation the premium of the bonding company is doubtless added by the contractor to the cost of the building, and is thus finally paid by the owner. It seems reasonable to expect that its effect elsewhere would be, as in Louisiana, to introduce a high degree of safety and certainty into building operations. Whatever disposition it would create on the part of materialmen to be careless as to the contractor to whom they sold would be more than counterbalanced by the disposition of bonding companies and others who should undertake to become sureties to scrutinize the character and competence of the contractor. It would also be reasonable to expect that, with the practical certainty of payment, there would come a tendency to lower the price of building supplies. If the effect of such legislation would be to secure all of these important benefits at the cost only of a premium of not exceeding 1 per cent on cost of building, it would seem to be well entitled to the careful consideration of other states.



The DEALER is offered  
**CALVERT MORTAR COLOR**  
for its TRUE WORTH

To Himself, the Builder, the Owner and the Public  
By its only maker

**JAS. B. MACNEAL & CO.**  
DEPT. R.  
Warner & Wooster Sts., BALTIMORE, MD.  
A Trial WILL convince you



Stained with Cabot's Shingle Stains and lined with Cabot's Sheathing Quilt. Robert W. Spencer, Jr., Architect, Chicago

## Cabot's Building Specialties

Cresote Stains for Shingles, Siding, Clapboards, Trimming Boards, and all other Exterior Woodwork.

Waterproof Cement and Brick Stains for waterproofing and artistically coloring cement and brick buildings.

"Quilt" for lining houses to keep out cold or heat, for sound-deadening in floors and partitions, and for insulating cold storage and refrigerators.

Conserve Wood Preservative for preserving Posts, Planks, Sills and all other exposed timbers. Mortar Colors, Protective Paints for Metals, Waterproofing Compounds, etc.

**SAMUEL CABOT, Inc., Mfg. Chemists**  
BOSTON, MASS., U. S. A.

1133 Broadway,  
New York

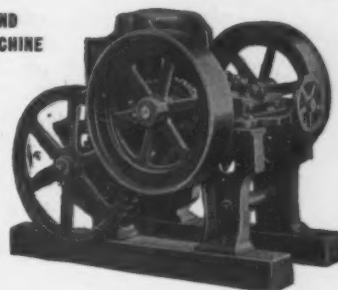
24 West Kinzie St.,  
Chicago

## MARTIN STONE CRUSHER AND GRINDER

IS A SAND  
MAKING MACHINE

Maximum  
Capacity  
No. 2  
25 Tons  
Daily

Maximum  
Capacity  
No. 4  
50 Tons  
Daily



No. 2 Receiving Opening 12x5 inches  
Weight 1,800 lbs. 3 Horse Power

Guaranteed and sent on ten days' working trial, **send in your Order** and pay after you have tried it out.

Limestone, Lime, Fieldstone, Flint, Marble, Granite, Sandstone, Oyster shells, Rock, Etc., can be reduced at one operation to the fineness of sand, or to  $\frac{1}{2}$ ",  $\frac{3}{4}$ ",  $1$ " or  $1\frac{1}{2}$ " for roads, concrete materials and fertilizing purposes.

**H. MARTIN BRICK MACHINE MFG. CO.**  
Lancaster, Pa., U. S. A.  
Crushers built in larger sizes also

## Anchor Brand Colors

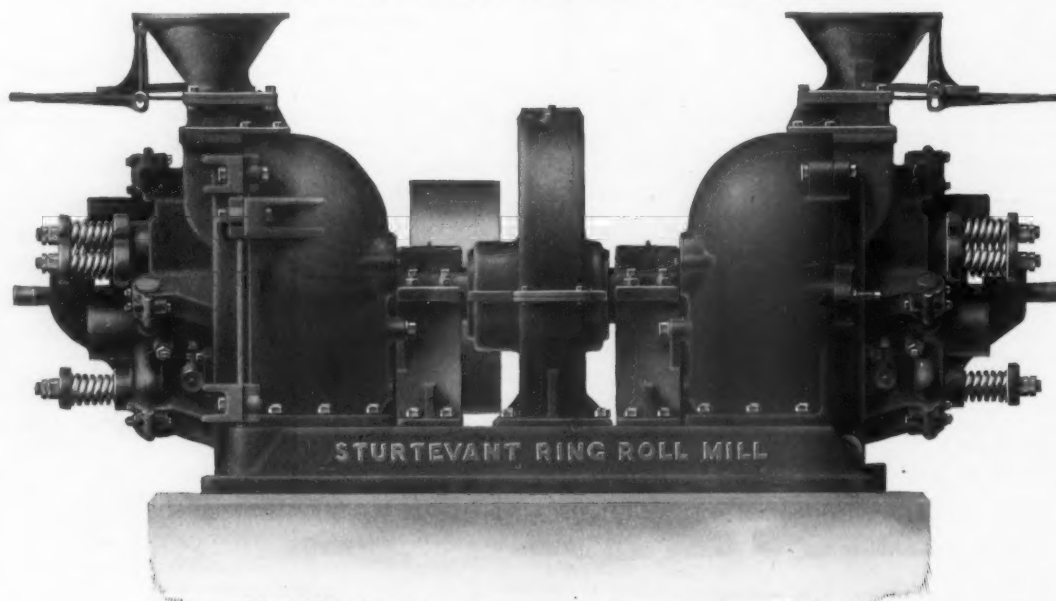
For Mortar, Cement and Brick  
**Brown, Black, Red and Buff**  
Strongest and Most Durable

Manufactured by **C. K. Williams & Co.**  
Correspondence Solicited  
Easton, Pa., U. S. A.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



**THE  
UNIVERSAL PORTLAND CEMENT COMPANY  
HAS BOUGHT  
STURTEVANT GIANT DUPLEX RING-ROLL MILLS  
FOR ITS NEW DULUTH PLANT**



**A BIG ORDER — FROM BIG PEOPLE**

who buy carefully, only after rigid investigation. They have both the money and brains to purchase the best. They know mistakes are costly and therefore move cautiously. Their judgment can be relied upon. For two years they have operated a Ring-Roll Mill against competitors to make sure it was right before placing them in their model Duluth Plant—The result speaks for itself.

**THE UNIVERSAL ORDER FOR CLINKER GRINDING CONSISTS OF**

**4 No. 2 DUPLEX RING-ROLL MILLS (equal to 8 single mills)**

Capacity 80-90 bbls. per hour, each to 20 mesh with 80 H. P.  
Upkeep—approx. 1-5c per bbl.

**9 No. 3 NEWAYGO SEPARATORS**

**8 No. 1 OPEN DOOR ROTARY CLINKER CRUSHERS**

**OTHER RECENT ORDERS FOR RING-ROLL MILLS**

GERMAN AMERICAN PORTLAND CEMENT CO.	HURON PORTLAND CEMENT CO.
WABASH PORTLAND CEMENT CO.	CAPE GIRARDEAU PORTL. CEMENT CO.
WOLVERINE PORTLAND CEMENT CO.	KENTUCKY PORTL. CEMENT and COAL CO.
FORT DODGE PORTLAND CEMENT CO.	

**BOTH OLD AND NEW CEMENT CO.'S ARE INSTALLING RING-ROLL MILLS  
ASK THEM WHY**

**STURTEVANT MILL CO., BOSTON, MASS.**

NEW YORK

CHICAGO

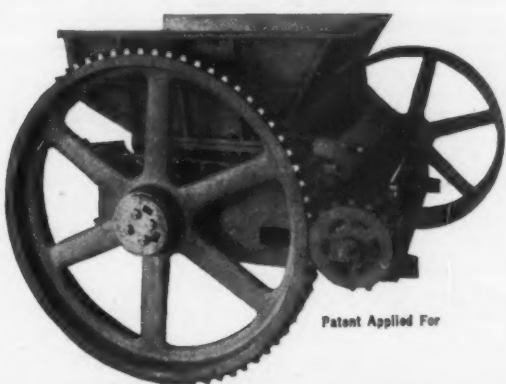
PITTSBURGH

DENVER

VICTORIA, B. C.

LONDON, ENG.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



Patent Applied For

## SINGLE ROLL CRUSHERS

For Limestone, Phosphate Rock and Cinder, etc. Any Capacity from 5 to 500 Tons per Hour. More Easily Fed, Makes Less Fines than Either a Jaw or Gyratory Crusher. Information and Prices for the asking.

**McLANAHAN-STONE MACHINE CO., Hollidaysburg, Pa.**

## FOUND AT LAST



THE PERFECT STEAM SHOVEL CHAIN  
"HERCULES SOLID WELD"  
EVERY LINK AS STRONG AS THE SOLID BAR

Cannot come apart at welds. Made from tough high grade hammered iron.  
The chain that lasts until entirely worn out.  
No delays from broken chain. It is a marvel in rock work.

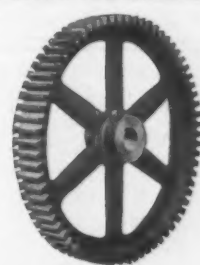
Made only by

**THE COLUMBUS CHAIN COMPANY**

Lebanon, Pa.

Columbus, Ohio

Address all communications to COLUMBUS, OHIO

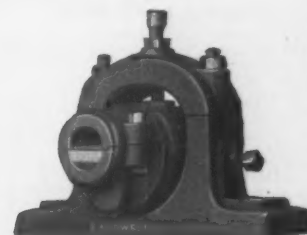


## ELEVATING AND CONVEYING MACHINERY



## H. W. CALDWELL & SON CO.

17th St. and Western Ave., Chicago  
Hudson Terminal, 50 Church St., New York



### ROCK PRODUCTS and BUILDING MATERIALS

### Index to Advertisements

MAY 22, 1914.

Acme Cement Plaster Co. .... 65  
Allegheny Steel Band Co. ....  
Alliance Brick Co. ....  
Alliance Clay Products Co. ....  
Allen Amer. Manganese Steel  
Co., Edgar. .... 7  
Allis-Chalmers Mfg. Co. ....  
Alpha-Portland Cement Co. ....  
Alton Brick Co. ....  
American Clay Machine Co. .... 11  
American Clay Co. ....  
American Keene Cement Co. .... 1  
American Process Co. .... 18  
American Pulverizer Co. .... 4  
American Steel & Wire Co. .... 11  
American Well Works. .... 55  
Armstrong Mfg. Co. .... 62  
Atlas Car & Mfg. Co. .... 68  
Atlas Portland Cement Co. .... 68  
Austin Mfg. Co. .... 9  
Automatic Weighing Machine  
Co. .... 59  
Bacon, C. Earle. .... 18  
Bartlett, The, C. O., & Snow  
Co. .... 34  
Belden Brick Co. ....  
Best Bros. Keene's Cement Co.  
Bonnot Co., The. .... 9  
Books for the Trade. .... 64  
Bostwick Steel Lath Co. .... 59  
Bourse, The. .... 28  
Bradley Pulv. Co. .... 5  
Busch-Sulzer Bros.-Diesel En-  
gine Co. ....  
Butterworth & Lowe. .... 9  
Cabot, Samuel, Inc. .... 51  
Caldwell, H. W., & Son Co. .... 53  
Canada Cement Co. .... 2  
Canada Pebble Co., Ltd. .... 58  
Cannelton Sewer Pipe Co.  
Carbo-Lundum Hardener Co.,  
The. ....

Cardiff Gypsum Plaster Co. ....  
Carroll Portland Cement Co. .... 1  
Ceresit Waterproofing Co. .... 17  
Chattanooga Paint Co. .... 63  
Chicago Belting Co. .... 1  
Chicago Portland Cement Co. ....  
Classified Business Directory. .... 54  
Clayton Air Compressor Wks. ....  
Columbus Chain Co., The. .... 53  
Coplay Cement Mfg. Co. .... 34  
Crane, P. D. Co. .... 12  
Cross Engineering Co. .... 31  
Crossley, Geo. C. .... 68  
Curry, J. P. Mfg. Co. .... 68  
Cyclone Drill Co., The. .... 61  
D. & A. Post Mold Co. ....  
Davenport Loco. Works. .... 67  
Dexter Portland Cement Co. .... 1  
Duff Patents Co. .... 63  
Dull & Co., Raymond W. .... 63  
Dunning, W. D. .... 67  
Ehram, J. B., & Sons Mfg. Co. .... 6  
Engineering Sales Corp. .... 4  
Evans Clay Mfg. Co. ....  
Faerberhill Mfg. Co. ....  
Farnham "Cheshire" Lime Co. .... 18  
Farrell Fdy. Mch. Co. .... 18  
Flintkote Mfg. Co. .... 86  
French, Samuel H., & Co. .... 1  
Fuller Eng. Co. .... 38  
Gardner Crusher Co. .... 7  
Giant Plaster Board Co., The. .... 33  
Giant Portland Cement Co. .... 2  
Goodrich Co., The B. F. .... 57  
Good Roads Mch. Co. .... 31  
Grimsley, G. P. .... 1  
Grundler Patent Crusher &  
Pulv. Co. .... 7  
Hannibal Lime Co. ....  
Harris Brick Co. ....

Hendricks Mfg. Co. .... 18  
Heppes Co., The. .... 34  
Hercules Waterproof Cement  
Co. .... 2  
Hocking Valley Fire Clay Co. ....  
Houston Bros. Co. .... 61  
Howells Mining Drill Co. .... 34  
Hunt, Robt. W., & Co. .... 36  
Imperial Belting Co. .... 18  
Improved Equipment Co. .... 1  
Indianapolis Cable Excavator  
Co. .... 1  
Jaeger Machine Co. .... 67  
Jalite Co., The. .... 31  
Jeffrey Mfg. Co. .... 58  
Johnston & Chapman Co. .... 16  
Kansas City Pt. Ct. Wks. .... 33  
Kees Mfg. Co., F. D. .... 12  
Kelley Island Lime & Trans.  
Co. .... 12  
Kelly Plaster Co. .... 10  
Kent Mill Co. .... 4  
Kewanee Mfg. Co. .... 60  
Kirkpatrick, W. C. .... 14  
Kissel Motor Car Co. .... 2  
Kritzer Company, The. .... 12  
Lehigh Portland Cement Co. .... 39  
Lewis, W. J., & Co. .... 51  
Lewistown Fdy. & Mch. Co. .... 31  
Link Belt Co. .... 65  
Loomis Machine Co., The. .... 53  
McLanahan Stone Mch. Co. .... 59  
McMyler Interstate Co. .... 51  
MacNeal, Jas. B., & Co. .... 51  
Majestic Foundry & Furnace  
Co. .... 61  
Marion-Osgood Co., The. .... 57  
Marquette Cement Mfg. Co. .... 57  
Martin, Henry, Brich Mch.  
Mfg. Co. .... 51

Maumee Chemical Co. .... 36  
Meade, Richard K. .... 34  
Metropolitan Paving Brick Co. .... 10  
Miscellaneous, H. .... 13  
Mitchell Lime Co. .... 27  
Moore's Lime Co., The. .... 34  
National Engineering Co. .... 34  
National Lime & Stone Co. .... 12  
National Mortar & Sup. Co. .... 12  
National Paving Brick Mfrs.  
Assn. .... 65  
National Plaster Board Co. .... 34  
National Retarder Co. .... 64  
Nagars Gypsum Co. .... 64  
Northwestern Expanded Metal  
Co. .... 67  
North Western Portland Ce-  
ment Co. .... 13  
Novo Engine Co. .... 61  
Ohio & Western Lime Co. .... 61  
Owen Bucket Co., The. .... 60  
Owens & Son, J. D. .... 57  
Peerless Portland Cement Co. .... 2  
Pennsylvania Crusher Co. .... 1  
Phoenix Portland Cement Co. .... 65  
Plymouth Clay Products & Gyp-  
sum Co. .... 8  
Plymouth Gypsum Co., The. .... 5  
Power & Mining Mach. Co. .... 5  
Raymond Bros. Impact Pulv.  
Co., The. .... 5  
Reeb, M. A. .... 63  
Reynolds Asphalt Shingle Co. .... 63  
Rickerson Mineral P. Wks. .... 11  
Roberts Mfg. Co. .... 18  
Ruggles-Coles Eng. Co. .... 10  
Sandusky Portland Cem. Co. .... 10  
Sauerman Bros. .... 18

Schaffer Engineering & Equip-  
ment Co., The. .... 35  
Scioto Lime & Stone Co. .... 13  
Security Cement & Lime Co. .... 33  
Smith, F. L., & Co. .... 31  
Shaw, Willis, Mch. Co. .... 31  
Stephens-Adamson Mfg. Co. .... 35  
St. Louis Port. Cement Co. .... 33  
Sturtevant Mill Co. .... 52  
Sykes Metal Lath & Roofing Co. .... 58  
Symons Bros. Co. ....  
Taylor-Wharton Iron & Steel  
Co. .... 59  
Thew Automatic Shovel Co.,  
The. .... 60  
Thompson-Armstrong Co. ....  
Thornton Fire Brick Co. .... 31  
Tonindustrie-Zeltung .... 31  
Troy Wagon Works Co., The. .... 3  
Union Mining Co. .... 1  
Union Sand & Material Co. .... 33  
Universal Crusher Co. .... 59  
U. S. Gypsum Co. .... 56  
Universal Portland Cement Co. .... 56  
Urschel Bates Valve Bag Co. ....  
Vulcanite Portland Cement Co. .... 2  
Webster Mfg. Co. .... 15  
Weller Mfg. Co. .... 63  
West Jersey Bag Co. .... 33  
Wheeling Wall Plaster Co. .... 36  
Whitacre Fireproofing Co. ....  
Whitehall Cement Mfg. Co. .... 34  
Williams, C. K., Co. .... 61  
Williams Patent Crusher & Pul-  
verizer Co. .... 8  
Winslow's Hydraulic System,  
Inc. .... 66  
Wolverine Portland Cement Co. .... 57  
Woodville Lime & Cement Co. ....  
Worrell, S. E. .... 18

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



# CLASSIFIED BUSINESS DIRECTORY

## BAGS AND BAG TYERS.

Curry Mfg. Co., J. P. (bag tyers).  
Faerberhill Mfg. Co. (bag tyers).  
Jalte Company, The.  
United Wire Tie Co.  
Urschel Bates Valve Bag Co.  
West Jersey Bag Co., The.

## BELTING.

H. W. Caldwell & Co.  
Chicago Belting Co.  
Dull & Co., R. W.  
B. F. Goodrich & Co.  
Imperial Belting Co.  
Stephens-Adamson Mfg. Co.  
Webster Mfg. Company.  
Weller Mfg. Co.

## BRICK.

Alliance Clay Products Co.  
Alliance Brick Co.  
Belden Brick Co.  
Hocking Valley Clay Co.  
Metropolitan Paving Brick Co.

## BRICK CLAMPS.

The P. D. Crane Co.

## BRICK PAVING.

Alton Brick Co.  
Harris Brick Co.  
Metropolitan Paving Brick Co.  
National Paving Brick Mfrs. Assoc.  
Thornton Fire Brick Co.

## BUCKETS, DUMPING AND GRAB.

Atlas Car & Mfg. Co.  
H. W. Caldwell & Co.  
Hendrick Mfg. Co.  
McMyler-Interstate Co.  
Owen Bucket Co.  
Willis Shaw Mch. Co.

## CABLES.

American Steel & Wire Co.  
Dull & Co., R. W.  
Sauerman Bros.

## CASTINGS.

Edgar Allen Amer. Mang. Steel Co.  
Taylor-Wharton Iron & Steel Co.

## CEMENT, HYDRAULIC.

Carolina Portland Cement Co.

## CEMENT, PORTLAND.

Atlas Portland Cement Co.  
Canada Cement Co.  
Carolina Portland Cement Co.  
Chicago Portland Cement Co.  
Copley Cement Mfg. Co.  
Dexter Portland Cement Co.  
French, Samuel H., & Co.  
Giant Port. Cement Co.  
Kansas City Portland Cement Co.  
Lehigh Portland Cement Co.  
Marquette Cement Mfg. Co.  
Northwestern States Portland Cement Co.  
Ohio & Western Lime Co.  
Phoenix Portland Cement Co.  
Sandusky Portland Cement Co.  
St. Louis Portland Cement Works.  
Security Cement & Lime Co.  
Union Sand & Material Co.  
Universal Portland Cement Co.  
Vulcanite Portland Cement Co.  
Whitehall Portland Cement Mfg. Co.  
Wolverine Portland Cement Co.  
Woodville Lime & Cement Co., The.

## CHAINS.

Edgar Allen Amer. Mang. Steel Co.  
Columbus Chain Co., The.  
Jeffrey Mfg. Co.  
Taylor-Wharton Iron & Steel Co.

## CLAY AND FIRE CLAY.

Crossley, Geo. C.

## CLAYWORKING MOHY.

American Clay Mch. Co.  
Bartlett, C. O., & Snow Co.

## COAL CHUTES.

Kewanee Mfg. Co.  
Majestic Foundry & Furnace Co.

## COLORINGS, DRY AND MORTAR.

Samuel Cabot.  
Chattanooga Paint Co.  
Clinton Metallic Paint Co.  
Macneal, James B., & Co.  
Ricketson Mineral Paint Works.  
Williams, C. K., & Co.

## COMPRESSORS.

Clayton Air Compressor Co.

## CEMENT FLOOR HARDENERS.

Premier Flooring & Material Co.

## CONCRETE MIXERS.

Jaeger Mach. Co.  
Miscampbell, H.  
Power & Mining Mach. Co.

## CONCRETE REINFORCEMENT.

American Steel & Wire Co.

## CONVEYORS AND ELEVATORS.

Allis-Chalmers Manufacturing Co.  
Austin Mfg. Co.  
Bartlett, C. O., & Snow Co.  
Caldwell, H. W., & Sons Co.  
Dull, Raymond W., & Co.  
Ehram, J. B., & Sons Mfg. Co.  
Goodrich Co., The B. F.  
Good Roads Mach. Co., The.  
Jeffrey Manufacturing Co.  
Link Belt Co.  
McMyler-Interstate Co.  
McLanahan Stone Machine Co.  
Power & Mining Mach. Co.  
Stephens-Adamson Mfg. Co.  
Webster Mfg. Company.  
Weller Mfg. Co.

## CONSULTING GEOLOGISTS.

Grimsley, G. P., Ph. D.  
Robt. W. Hunt & Co.  
Lewis & Co., W. J.

## CRANES—LOCOMOTIVE AND GANTRY.

McMyler-Interstate Co.

## CRUSHERS AND PULVERIZERS.

Allis-Chalmers Manufacturing Co.  
American Pulverizer Co.  
Austin Mfg. Co.  
Bacon, Earl C.  
Bartlett, C. O., & Snow Co.  
Bonnot Co., The.  
Bradley Pulverizer Co.  
Butterworth & Lowe.  
Ehram, J. B., & Sons Mfg. Co.  
Gardner Crusher Co.  
Good Roads Mach. Co., The.  
Gründler Patent Crusher & Pulverizer Co.  
Jeffrey Manufacturing Co.  
Kent Mill Co.  
Lewistown Foundry & Machine Co.  
Martin, Henry.  
McLanahan Stone Machine Co.  
Pennsylvania Crusher Co.  
Power & Mining Mach. Co.  
Raymond Impact Pulverizer Co.  
Symons Brothers.  
Sturtevant Mill Co.  
Taylor-Wharton Iron & Steel Co.  
Williams Pat. Crusher & Pulverizer Co.

## DRAIN TILE.

American Brick & Tile Co.  
American Clay Co.  
Evans Clay Mfg. Co.  
Mason City Brick & Tile Co.

## DRILLS.

American Well Works.  
Armstrong Mfg. Co.  
Cyclone Quarry Drill Co.  
Howells Mining Drill Co.  
Loomis Machine Co.

## DRYERS.

American Process Co.  
Bartlett, C. O., & Snow Co.  
Ruggles-Coles Eng. Co.  
Worrell, S. E.

## DUMP CARS.

Atlas Car & Mfg. Co.  
Austin Mfg. Co.  
Stephens-Adamson Mfg. Co.  
Weller Mfg. Co.

## ENGINEERS.

Bacon, Earl C.  
A. P. Broomell.  
Duff Patents Co., Inc.  
Dull, Raymond W., & Co.  
Fuller Engineering Co.  
Grimsley, G. P.  
Robt. W. Hunt & Co.  
Improved Equipment Co.  
Kirkpatrick, W. C.  
Lewis, W. J., & Co.  
Meade, R. K.  
Nat'l Engineering Co.  
Sauerman Bros.  
Schaffer Eng. & Equip. Co.  
Smidth & Co., F. L.  
Stephens-Adamson Mfg. Co.

## ENGINES.

Armstrong Mfg. Co.  
Busch-Sulzer Bros.-Diesel Engine Co.  
Good Roads Mach. Co., The.  
Novo Engine Co.  
Power & Mining Mach. Co.

## EXCAVATORS.

Raymond W. Dull Co.  
Indianapolis Cable Excavator Co.  
McMyler-Interstate Co.  
Owen Bucket Co.  
Sauerman Bros.  
Weller Mfg. Co.

## FIRE BRICK.

Carolina Portland Cement Co.  
Evans Clay Mfg. Co.  
Improved Equipment Co.  
Mason City Brick & Tile Co.  
Thornton Fire Brick Co.  
Thompson-Armstrong Co.

## FLUE LININGS.

Evans Clay Mfg. Co.  
Thompson-Armstrong Co.

## FURNACES FOR SPECIAL PURPOSES.

Improved Equipment Co.

## GEARS.

Edgar Allen Amer. Mang. Steel Co.  
Caldwell, H. W., & Son Co.  
Stephens-Adamson Mfg. Co.  
Taylor-Wharton Iron & Steel Co.  
Weller Mfg. Co.

## GLASS SAND MACHINERY.

Lewiston Fdy. & Mach. Co.

## GYPSUM—PLASTER.

Acme Cement Plaster Co.  
American Keene Cement Co.  
Best Bros. Keene's Cement Co.  
Cardiff Gypsum Co.  
Carolina Portland Cement Co.  
Giant Plaster Board Co.  
Kelly Plaster Co.  
National Mortar & Supply Co.  
Niagara Gypsum Co.  
Ohio & Western Lime Co.  
Plymouth Gypsum Co.  
Reeb, M. A.  
U. S. Gypsum Co.  
Wheeling Wall Plaster Co.

## HAIR.

Ohio & Western Lime Co.

## HOLLOW CLAY TILE.

American Clay Co.  
Mason City Brick & Tile Co.  
Metropolitan Paving Brick Co.  
Whiteacre Fireproofing Co.

## HYDRATING MOHY.

Kritzer, Co., The.  
H. Miscampbell.

## LIME.

Carolina P. C. Co.  
Farnam-Cheshire Lime Co.  
Hannibal Lime Co.  
Kelley Island Lime & Trans. Co.  
Mitchell Lime Co.  
The Moores Lime Co.  
National Lime & Stone Co.  
National Mortar & Supply Co.  
Niagara Gypsum Co.  
Ohio & Western Lime Co., The.  
Owens & Son, John D.  
Scioto Lime & Stone Co.  
Security Cement & Lime Co.  
Woodville Lime & Cement Co.

## LIME, HYDRATED.

Hannibal Lime Co.  
Kelley Island Lime & Transport Co.  
Mitchell Lime Co.  
The Moores Lime Co.  
National Lime & Stone Co.  
National Mortar & Supply Co.  
Niagara Gypsum Co.  
Ohio & Western Lime Co., The.  
Owens & Son, John D.  
Scioto Lime & Stone Co.  
Security Cement & Lime Co.  
Woodville Lime & Cement Co., The.

## LIME KILNS.

A. P. Broomell.  
Improved Equipment Co.

## LOADERS.

Jeffrey Mfg. Co.  
Link Belt Co.  
Stephens-Adamson Mfg. Co.  
Weller Mfg. Co.

## LOCOMOTIVES.

Davenport Locomotive Wks.  
Willis Shaw Mch. Co.

## MANGANESE STEEL.

Edgar Allen American Manganese Steel Co.  
Taylor-Wharton Iron & Steel Co.

## METAL BUILDING CORNERS.

F. D. Kees Mfg. Co.

## METAL LATH.

Bostwick Steel Lath Co.  
Carolina Portland Cement Co.  
North Western Expanded Metal Co.  
Sykes Metal Lath & Roofing Co.

## MOTOR TRUCKS.

Kissel Kar Co.

## PAINT AND COATINGS.

Samuel Cabot.  
Chattanooga Paint Co.  
James B. Macneal & Co.  
Ricketson Mineral Paint Co.  
C. K. Williams & Co.

## PEBBLES.

Canada Pebble Co.

## PERFORATED METALS.

Cross Engineering Co.  
Johnson & Chapman.  
Hendrick Mfg. Co.

## PREPARED ROOFING—SHINGLES.

Carolina Portland Cement Co.  
Flintkote Mfg. Co.  
The Heppes Co.  
Reynolds Asphalt Shingle Co.

## PLASTER.

See Gypsum.

## PLASTER BOARD.

Giant Plaster Board Co.  
National Plaster Board Co.  
Niagara Gypsum Co.  
Plymouth Gypsum Co.  
U. S. Gypsum Co.

## PLASTER MOHY.

Butterworth & Lowe.  
Dunning, W. D.  
Ehram, J. B., & Sons Mfg. Co.  
Miscampbell, H.  
Williams Pat. Crusher & Pulverizer Co.

## ROAD MACHINERY.

Austin Mfg. Co.  
Troy Wagon Works.

## ROOFING-METAL.

Sykes Metal Lath & Roofing Co.

## SEWER PIPE.

Cannelton Sewer Pipe Co.  
Evans Clay Mfg. Co.  
Houston Bros. Co.  
Plymouth Clay Products Co.  
Thompson-Armstrong Co.

## SILCO BLOCKS.

American Brick & Tile Co.  
Davenport Brick & Tile Co., Davenport, Iowa.  
Mason City Brick & Tile Co.

## QUARRY CARS.

See Dump Cars.

## SAND.

Crossley, Geo. C.  
Union Sand & Material Co.

## SAND AND GRAVEL WASHING PLANTS.

Dull & Co., Raymond W.  
Stephens-Adamson Mfg. Co.  
Webster Mfg. Co.  
Weller Mfg. Co.

## SAND LIME BRICK MACHINERY.

Amer. Clay Machy. Co.

## SCREENS.

Butterworth & Lowe.  
Cross Engineering Co.  
Dull & Co., Raymond W.  
Edgar Allen Amer. Mang. Steel Co.  
Ehram, J. B., & Sons Mfg. Co.  
Good Roads Mach. Co., The.  
Hendricks Mfg. Co.  
Johnston & Chapman Co.  
McLanahan Stone Machine Co.  
National Eng. Co.  
Power & Mining Mach. Co.  
Stephens-Adamson Mfg. Co.  
Sturtevant Mill Co.  
Webster Mfg. Company  
Weller Mfg. Co.

## STEAM SHOVELS.

Marion-Osgood Co., The.  
The Automatic Shovel Co.  
Willis Shaw Mch. Co.

## SINK AND FLOAT TESTERS.

Pennsylvania Crusher Co.

## STEAM SHOVEL TEETH.

Edgar Allen Am. Manganese Steel Co.  
Taylor-Wharton Iron & Steel Co.

## STUCCO RETARDER.

National Retarder Co.

## TIRES—RUBBER.

B. F. Goodrich Co.

## TUBE MILLS.

Allis-Chalmers Manufacturing Co.  
Power & Mining Mach. Co.  
Smidth & Co., F. L.

## WAGONS.

Troy Wagon Wks. Co., The

## WALL BOARD.

Roberts Mfg. Co.

## WALL PLUGS AND TIES.

Allegheny Steel Band Co.  
Sykes Metal Lath & Roofing Co.

## WATERPROOFING.

Cabot, Samuel, Inc.  
Carolina Portland Cement Co.  
Ceresit Waterproofing Co.  
Hercules Waterproofing Cement Co.  
Maumee Chemical Co.  
Sandusky Portland Cement Co.  
Wadsworth, Howland & Co., Inc.  
Winslow's Hydrolithia System, Inc.

## WEIGHING MACHINES.

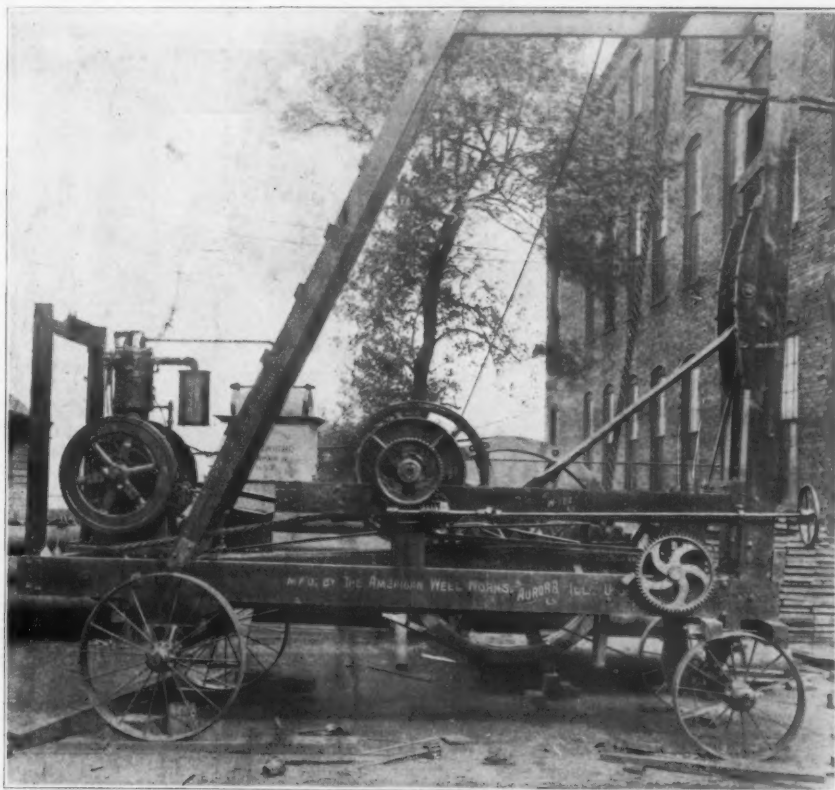
Automatic Weighing Machine Co.  
Schaffer Eng. & Equip. Co.  
Sturtevant Mill Co.

## WELDING AND CUTTING APPARATUS.

Engineering Sales Corporation.

## WIRE AND WIRE FENCING.

American Steel & Wire Co.



**"In the Quarry"**  
**Reliable  
 Tests  
 Have  
 Proved  
 Its Worth**

## **The "NEW AMERICAN" Blast Hole Drilling Machine**

has been perfected not alone by theory, but by a series of tests under the most difficult and trying conditions to be found in the quarry field.

**Tests of Cost** This drilling machine has been operated under many varying conditions and a complete record of the low cost of operation has been tabulated for the inspection of all quarry operators. These cost tables are conclusive evidence that the "New American" Drilling Machine is economical in operation and maintainance. These cost tables will be gladly furnished upon application.

**Tests of Service** Service and durability have been proven by the successful use of the machine in various localities. It delivers under ordinary conditions 55 to 60 strokes per minute and will maintain a speed of 60 strokes per minute in a dry hole to a depth of 40 feet. The "New American" has drilled at a satisfactory rate of speed in broken, seamy rock, which has been considered impossible with a cable drill and which could not be drilled with steam or air drills.

### **Some Special Advantages of the "New American" Drilling Machine Are as Follows:**

The derrick is one of the strongest ever constructed and is designed to be raised by the power of the machine. The important feature of the design of the machine is that it carries cutting tools weighing up to 1,200 pounds, and the machine is so simple in design that it is not of excessive weight and therefore readily portable. The drilling tools are always hung up off the bottom when spud beam is stopped and always start on the down stroke. There are no gear wheels or clutches and the spudding motion is stopped instantly regardless of the speed of the engine. It is built close to the ground, thus avoiding the top-heavy construction found in some machines. It embodies the best features of all the blast hole drills with some new and original features not found in any other drill.

We have told you **some** of the advantages of the "New American" Drill. Write today for complete information. Our service department is ready to answer any question.

**THE AMERICAN WELL WORKS**  
 General Offices and Works, Aurora, Illinois  
 Chicago Office, First National Bank Building

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



Normal Park M. E. Church  
Chicago  
Built of Concrete Blocks  
UNIVERSAL Portland Cement Used



is a word which has become synonymous with quality, service and confidence in the field of cement construction. This is evidenced by the fact that 10,382,883 barrels of UNIVERSAL were shipped in 1913 — shipments larger than those of any single manufacturer of Portland cement in the world.

### UNIVERSAL PORTLAND CEMENT CO.

#### OFFICES:

Chicago,  
Pittsburgh,  
Minneapolis,

208 South La Salle St.,  
Frick Building,  
Security Bank Building.

PLANTS AT CHICAGO AND PITTSBURGH

ANNUAL OUTPUT 12,000,000 BARRELS

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

WHEN YOU ORDER, SPECIFY  
**"Peerless" Portland Cement**

BECAUSE:

ITS "QUALITY" represents the highest point of perfection in cement manufacture:

THE "ECONOMY" obtainable by its use is the greatest owing to its high sand carrying qualities:

THE "SERVICE" in prompt shipment is unsurpassed because of the special train service daily furnished by the Michigan Central Railroad for the handling of this Company's business.

**PEERLESS PORTLAND CEMENT COMPANY**

Office and Works: Union City, Branch County, Michigan



**"WOLVERINE"**

The Alright Cement

MADE RIGHT SOLD RIGHT  
 WORKS RIGHT  
 WEARS RIGHT

The Best is None Too Good For You.  
 Insist Upon

**"WOLVERINE"**

Write for Booklet and Quotations.  
 Factories at Coldwater and Quincy, Mich.  
 Capacity 3500 Daily.

**WOLVERINE PORTLAND CEMENT COMPANY**

W. E. COBEAN, Sales Agent,  
 Coldwater, Michigan

Main Office, Coldwater, Mich.

THE most expert independent chemists have set their stamp of approval on

**Marquette  
 Portland Cement**

and the tests of the American Society for Testing Materials have shown it to be perfect. You'd better be satisfied to use this Cement in all your work rather than take chances.

Marquette service is known as efficient, rapid and pleasure giving service.

The green guarantee tag on every bag of Marquette Portland Cement means we have made it better than government specification; as much better as possible. Look for the Green Tag.

We have an interesting book on "Concrete Roads and Pavements;" it's free, send for it.

Marquette Cement Mfg. Co., Chicago.  
 1335 Marquette Building.



**Hauling cement—**

V. H. Kriegshaber & Son, Contractors, Atlanta, use this 1-ton Mack Truck for delivering building material.

It is completely equipped with Goodrich Wireless Truck Tires.

Mr. Kriegshaber wrote us January 29th, 1914:—

"It gives us great pleasure to advise you that your tires have given us very excellent service, having delivered approximately 10,000 miles. They have stood up remarkably well, and we can recommend them highly."

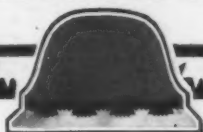
**GOODRICH  
 WIRELESS  
 TRUCK TIRES**

will do for you what they are doing for the V. H. Kriegshaber Company

**The B. F. Goodrich Company**

Factories: Akron, Ohio

Branches in All Principal Cities



Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



## CANADA PEBBLES

Carefully selected  
as to size.

Best shapes.

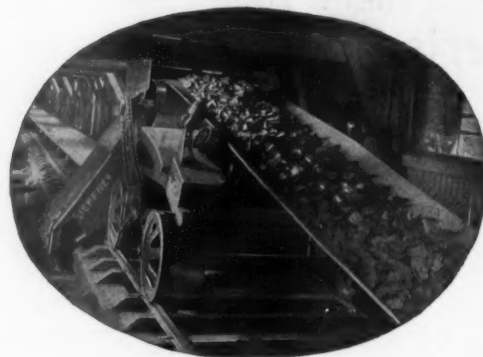
Will not break or  
flake in Tube Mill.

## CANADA PEBBLE CO., Limited

*Highest Grade Grinding  
Pebbles for Tube Mills*

General Offices  
**PORT ARTHUR**  
Ontario, Canada

Branch Office  
**CHICAGO, ILL.**  
537 S. Dearborn St.



*For Handling Stone, Sand, Gravel, Cement, etc.*

## Jeffrey Rubber Belt Conveyers

*Are Superior in Every Detail.*

Our Century Belts are a composite of the best materials and practical engineering experience in the handling of all classes of materials.

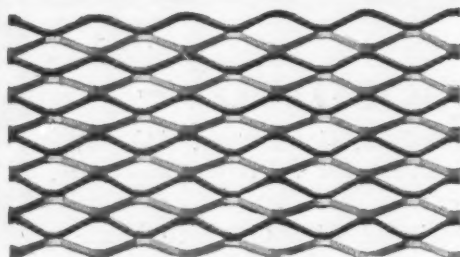
Troughing Pulleys have a slope such as to give the belt a maximum carrying capacity, while insuring a minimum of surface and internal wear to the belt.

Unloaders or Trippers occupy small space over the belt and operate with minimum horse-power. Their rigid and substantial design is a guarantee to minimum care and upkeep.

No. 67-D shows Jeffrey Belt Conveyers in service in all parts of the world. Write for Copy.

## Jeffrey Mfg. Co., Columbus, Ohio

New York Boston Philadelphia Pittsburgh Cleveland  
Charleston, W. Va. Birmingham Chicago Denver Montreal

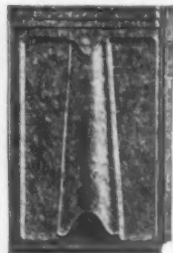


**SYKES EXPANDED CUP LATH**  
**SELF-FURRING**

HAS NO EQUAL FOR

**STUCCO WORK**

Furnished with either an anti-rust (oil) coating, painted black or galvanized, packed in bundles containing 20 square yards, size of sheets 18x96 in.; in gauges 27, 26, 25 and 24.



**SYKES**  
**"IMPERIAL" SHINGLE.**

SIZE 10 x 14 and  
14 x 20 INCHES.

We also manufacture all styles of roofing and siding, such as corrugated, v crimp, pressed standing seam, roll roofing, brick siding, weather board siding, beaded ceiling, etc.

## Sykes Metal Lath

Present opportunities for the dealers to double their sales in this line, as Architects are specifying and building contractors are using SYKES products.

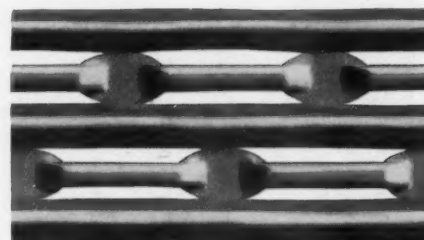
## BASIC REASONS

**SYKES EXPANDED CUP LATH** is self-furring. This greatly reduces the cost of construction on every building where it is used. It is more economical in the amount of plaster required than any other expanded lath. Quickly erected as both sides are alike, cannot be applied wrong.

**SYKES TROUGH SHEET LATH** is incomparable in its utility for inside plaster work. Can be used to great advantage on any kind of a building. Unusual design, strength and keying principle.

**WHY NOT HANDLE OUR PRODUCTS AND INCREASE YOUR PROFITS.**

Write us at once for our SPECIAL EXCLUSIVE SALES PROPOSITION, SAMPLES, ETC.

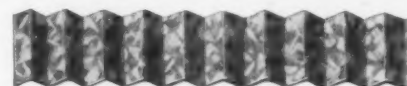


**Sykes Trough Sheet Lath**

The Strongest and  
Most Durable Lath Made

## Perfect for Interior Work

Furnished with either an Anti-Rust (oil) coating, painted black or galvanized. Size of sheets, 13½, 15½, 18½, 23½ in. wide by 96 in. long.



**SYKES WALL TIE**

Standard Tie 7 in. long

Veneer Tie 6 in. long

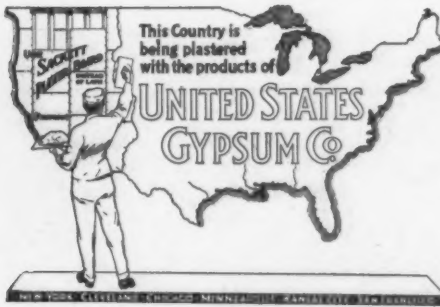
We also make Metal Corner Bead

**THE SYKES METAL LATH & ROOFING CO.,**  
508 Walnut Street, NILES, OHIO

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



THE LOGICAL LATHING MATERIAL  
THE BEST IN GYPSUM PLASTER



## PYROBAR GYPSUM TILE

Recognized highest standard of efficiency  
in Fire-Proofing

**U. S. G. PRODUCTS—"THE PROGRESS OF THE GYPSUM INDUSTRY"**

## AUTOMATIC WEIGHING MACHINE COMPANY High Grade Automatic Scales

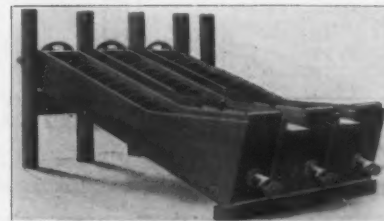
Main Office and Factory, NEWARK, N. J., No. 134-140 Commerce St.

Agency, Detroit, Mich., 28 Woodbridge St., East

## TISCO MANGANESE STEEL CASTINGS

FOR SEVERE SERVICE

**TAYLOR-WHARTON IRON & STEEL CO.**  
HIGH BRIDGE, NEW JERSEY



Sand Washers

**LEWISTOWN FOUNDRY &  
MACHINE CO.** Lewistown, Pa.

Builders of heavy duty crushers and  
glass sand machinery.

Glass sand plants equipped complete

Write for prices and catalog



## Your Stock

is not complete for up-to-the-minute  
requirements unless it includes a high  
grade light re-enforcement for use  
without forms or stiffening channels.

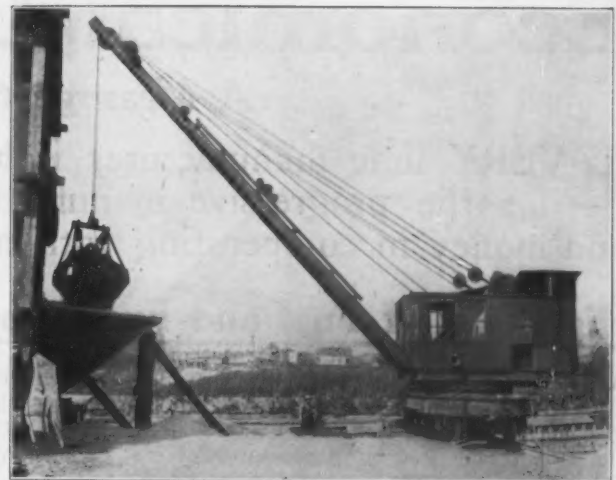
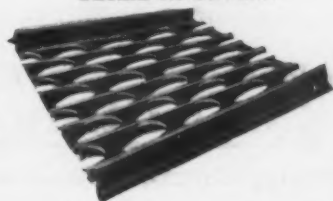
## "BOSTWICK TRUSS-V-RIB" IS WHAT YOU NEED

Get our proposition and an outline  
of the service that goes with it.

DETAIL TRUSS-V-RIB.

**The Bostwick  
Steel Lath Co.,**

NILES, O.



## There is a Quicker and Better Way

of handling Sand, Gravel, Crushed Limestone, and kindred materials.  
It's more economical too.

It's the  
"McMyler Interstate Way"

The McMyler Interstate Crane shown above is owned and operated by  
the Artesian Lime & Stone Company. It is fitted with our Multi  
Power Bucket and the photo shows it handling crushed limestone.  
We've solved a good many of our customers' problems.  
Can't we help you with yours?

**The McMyler Interstate Co.,** Cleveland, Ohio  
London New York Chicago

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



## Large Outputs Can be Secured with a Small Thew Shovel



Type O Shovel in a Gravel Pit

This Type O Thew Shovel loaded gravel as follows:

DATE	HOURS	CU. YDS.	YDS. PER HOUR
Oct. 10	10	687	69
" 11	6	437	73 (Rain)
" 13	10	875	87
" 14	10	687	69
" 15	10	750	75
" 16	10	750	75
" 17	7½	574	76 (Rain)
" 18	5	422	84 (Forenoon only)

Total  
7½ Days 68½ 5182 76

Total yards in contract, over 50,000

10 Hour Days operated = 82

Cubic Yards per day = 609

Another Contractor sends us the following results secured with his Type 1 Thew Shovel in his gravel pit:

DATE	HOURS OPERATED	CARS LOADED	CUBIC YARDS	DATE	HOURS OPERATED	CARS LOADED	CUBIC YARDS
Oct. 4	6½	220	1366	Oct. 16	9	224	1175
" 5	10	252	1103	" 19	10	314	1885
" 6	7½	232	1475	" 25	8	216	1158
" 8	5	216	1153	" 28	9½	276	1582
" 10	5	192	1142				
" 12	10	271	1724	Totals 11 days	85½	2605	14,942
" 15	5	192	1179	Average "	7½	237	1,359

Use a Thew. It Pays

THE THEW AUTOMATIC SHOVEL CO.,  
LORAIN, OHIO

## Economical Lime Production

### A Message to the Manufacturer

EVERY lime manufacturer is looking for **economy**—and I am looking for the progressive manufacturer who is willing to spend some time and money in co-operating with me for lower **cost of production**.

#### High Cost of Fuel and Fuel Labor

About 90% of the lime manufacturers burn their product with wood or coal direct fired, and obtain less than 20% efficiency of the fuel, thus losing 80%. This 80% of the fuel is not only lost but the total labor cost of handling is also lost.

#### Use of Rich Combination Gas

No engineer or chemist will dispute the fact that high grade lime can be produced by firing the kilns with gas, providing the temperature and moisture in the kiln can be absolutely controlled.

#### Quality of Gas Essential

I will design and have installed for you a gas plant that will produce a rich, cool, clean gas, placed under pressure and distributed in small service lines, fed into the burner under gate valve control. All air for combustion to be handled in separate service lines in the same manner. The gas would have a heating value of 300 B. T. U. and up, with a temperature not exceeding 300 degrees at the generator as against ordinary producer gas at 125 B. T. U. and 1200 degrees.

Write TODAY for Further Information

**W. C. KIRKPATRICK, Consulting Engineer**

615 Chamber of Commerce Building, Chicago, Illinois

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



M-O "43" 1 1/2-yd. Traction Shovel. Stone Quarry of John D. Owens & Son, Owens, Ohio.

STEAM SHOVELSDIPPER DREDGESBALLAST UNLOADERS**M-O "43" 1 1/2 Yd. Traction Shovel****Spur Gear Drive and Separate Steering Engine**

The Railroad Shovel is readily converted into a Traction shovel by removing the trucks, jacks, Couplers, air brakes, etc., and then bolting up underneath the frame, the forward and rear traction axles and the driving shafts. The steering engine is mounted on the floor at the extreme rear end of the shovel and is connected to a steering screw for slewing the rear axle. Power for driving is transmitted from the main engines by spur gearing direct to the traction wheels on the front axle, thus doing away entirely with the bothersome sprocket chains now employed for this purpose. The steering lever is placed within easy reach of the shovel runner, when in his usual position, so that he has full control of the steering and propelling movements.

**THE MARION-OSGOOD COMPANY**

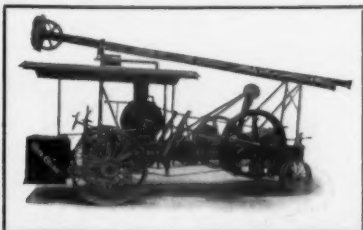
Eastern Office:  
51 STATE STREET, ALBANY, N. Y.

Marion, Ohio, U. S. A.

## NOT A WELL DRILL, BUT A BIG BLAST HOLE DRILL

### THE CYCLONE No. 14

#### A MACHINE ESPECIALLY DESIGNED FOR BIG HOLE QUARRY DRILLING



SIXTY LONG SMASHING BITES PER MINUTE, AND EACH BITE MEANS A CUT IN THE COST OF PRODUCTION AND AN INCREASE IN PRODUCTION. THE EAVENOUS APPETITE OF THE CYCLONE CANNOT BE SATIATED WITH 24 HOURS PER DAY OF ROCK-DEVOURING.

IT HAS A "BACKBONE" OF STEEL WHICH WILL WITHSTAND THE MOST EXTREME STRAINS OF QUARRY DRILLING. RAIN, SNOW AND ICE CANNOT INTERFERE WITH THIS COST-CUTTER OF THE QUARRY. NO SLIPPING NOR LOST TRANSMISSION—NO RESTING OF TOOLS AT THE BOTTOM OF THE HOLE. WE WILL PLACE THIS DRILL IN YOUR QUARRY UNDER YOUR OWN SUPERVISION AGAINST ANY BIG BLAST HOLE DRILL ON THE MARKET, AND WILL GUARANTEE IT TO DRILL MORE HOLE AT LESS EXPENSE THAN ANY MACHINE IN THE CONTEST. YOU ARE THE JUDGE.

NEW YORK OFFICE  
50 CHURCH STREET

WRITE FOR OUR B-25 CATALOG.

THE CYCLONE DRILL CO., ORRVILLE, OHIO.

CHICAGO OFFICE  
418 HARTFORD BLDG.

## The Cost Per Cubic Yard

will be far higher than justifiable unless you equip your crane with the "right" bucket—a bucket which will increase and not decrease the efficiency of your operating equipment. An

## Owen Bucket

at the "business end" of your crane or derrick, means an increase in output or less trips to give you the required output. Either spells "reduced material handling costs." Our booklet "Owen Buckets in Operation" illustrates convincingly what Owen Buckets are doing for other contractors on all classes of work. Why not write for it now?

### The Owen Bucket Company

629 Rockefeller Building - Cleveland, Ohio



## HOWELLS DRILLS

for all purposes where drills are required. Combine efficiency and economy.

Standard  
Rock  
Drill of  
the World.

Howells  
Drills  
Bore the  
World's  
Gypsum.

Fastest  
Strongest  
most  
Durable  
Rock Drill.

Howells  
Heavy  
Geared  
Post  
Drill

Thousands of these drills doing duty everywhere—speak for themselves.

These drills have a record—can't be beat. Will drill from five to seven inches per minute in gypsum or soft rock.

We make over 40 different kinds of Auger  
Drills, operated by Hand, Electricity and Air

### Howells Mining Drill Company

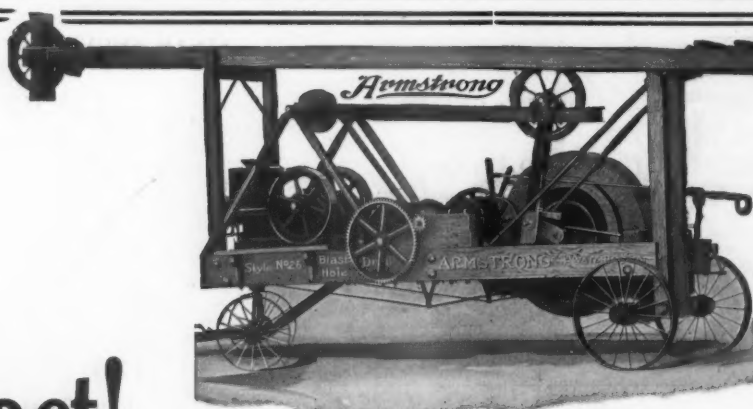
Plymouth, Pa., U. S. A. ::

Write for Catalogue  
No. 28 today

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



# See What We Write In the Contract!



Here is a guarantee that settles all disputes—removes all doubts—makes the buyer of an Armstrong Special Blast Hole Drill absolutely **certain** that he will get better results than any other Cable Drilling machine can give him.

All we ask is a chance to **prove** to you that an Armstrong Special Blast Hole drill will reduce your drilling and operating expenses and increase your profits. We are doing it for quarrymen and cement manufacturers all over this country, and we're ready to do it for you. Our guarantee gives full assurance that we will make good.

## Armstrong Blast Hole Drills

For Quarry Operators and Cement Manufacturers

No other part of your quarry equipment so deserves **first** consideration—from the standpoint of economy and efficiency—as the drilling equipment.

The Armstrong Special Blast Hole Drill is **not** a well drilling machine, but a specially built machine designed for the one job of drilling blast holes in rock, with a drilling motion and beam that more than double the footage drilled, cost considered.

At the same time this machine is working **faster** than any other, it is operating with less wear and tear on the equipment. It is easier to handle, gives longer service and **better** service every day it is in use.

It doesn't cost you one cent to get proof of all these claims, and when you get the proof, you will see that you can't afford to be without the Armstrong.

*Write Us Today For Proof*

### Armstrong Mfg. Co.

ESTABLISHED  
1867

Home Office and Factory, Waterloo, Iowa, U. S. A.

Eastern and Export Office: No. 11 Broadway, New York City  
Canadian Branch: Drinkle Block No. 2, Saskatoon, Sask.  
Western Branch: 3rd and San Pedro Sts., Los Angeles, Cal.

We have some literature that shows **why** you get more footage, work fewer hours and use less power with the Armstrong. It shows you **why** you can cut your cost of production from **2 to 4 cents a ton** and you know that a margin of that size will often mean success when you are figuring on a job.

We guarantee the Armstrong Special Blast Hole Drill to Drill **More** Holes in a given time than any cable drill on the market, and we will write this in every sale contract we make.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



There's one 'best' in every line, but that is not always best for every one concerned. In the building trades.

## Ricketson's Mineral COLORS

are acknowledged to be the best choice for *Everybody*. Best for the architect because purest. Best for the contractor because they go farther. Best for the owner because they never change their color.

For Mortar, Brick, Cement, Stone, Etc.  
Red, Brown, Buff, Purple and Black

RICKETSON MINERAL PAINT WORKS MILWAUKEE, WIS.

## Red, Brown, Buff and Black



MORTAR  
COLORS

The Strongest and  
Most Economical  
in the Market.



Our Metallic Paints and Mortar Colors are unsurpassed in strength, fineness, and body, durability, covering power and permanency of color. Write for samples and quotations.

## CHATTANOOGA PAINT CO.

Chattanooga, Tennessee



Plant of the Mackinaw Sand and Gravel Co. at Chillicothe, Ill.

### The President of this Gravel Washing Plant Says:

"Just send your prospective customers to our new plant here at Chillicothe, Ill., and when they see it working and see the kind of material it is turning out, they cannot help but buy your equipment. I would not take four of other makes of drag line buckets for one of these new ones of yours and I am using the others, too." This is the statement of Mr. James McGrath, president of the Mackinaw Sand & Gravel Co., Peoria, Ill.

We can also give you just as good testimony regarding our portable tubular gravel washers and our conveying systems.

Write today for further information.

## The Raymond W. Dull Company

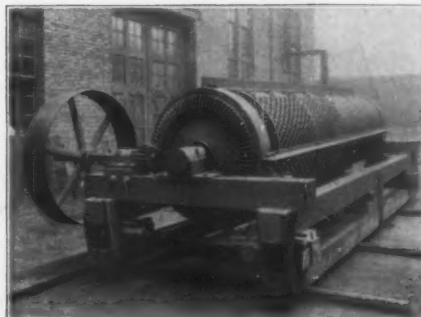
1910-1912 Conway Bldg.,

CHICAGO, ILL.

WELLER-MADE

For quarry, sand  
and gravel pit, cement mill, etc.

## Revolving Screens



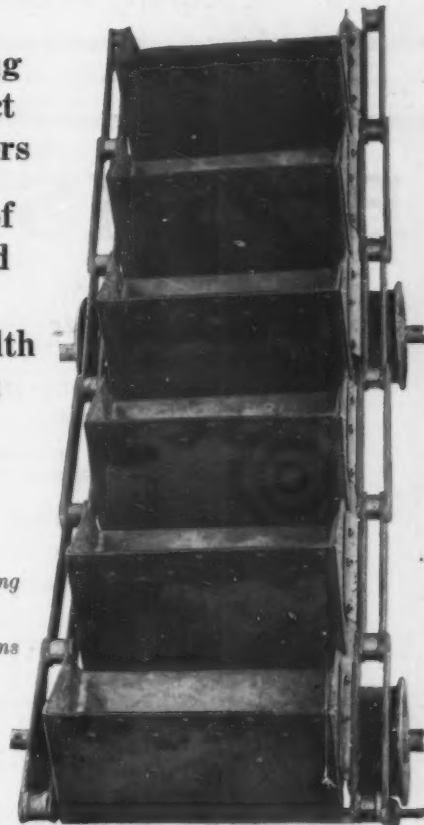
for sizing  
any stone  
from  
screenings  
up to any  
desirable  
size

## Heavy Steel Bucket Elevators

For handling  
stone direct  
from crushers

Any style of  
bucket and  
chain  
up to 84" width  
of bucket

Complete  
Elevating, Conveying  
and Power  
Transmitting Systems



## WELLER MFG. CO. CHICAGO

NEW YORK  
50 Church Street

Branch Offices:  
ST. LOUIS  
520 Victoria Bldg.

DALLAS  
711 Main Street

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS





**Build Your Walls With Care**  
*They are the most important feature of your home*

Discriminate in the selection of the base behind your interior plastering and your outside stucco and you will have walls of beauty and permanence.

**Kno-Burn**  
 Expanded Metal Lath

is the logical base for plaster and stucco. It is absolutely dependable. Plaster cracks when the lath behind it does not grip. Kno-Burn is made with a mesh which the plaster *seizes* when applied and grips unflinchingly as soon as it has hardened. Plaster falls when the lath behind it begins to rot. Kno-Burn can't rot. It is a metal lath.

Our new booklet "Practical Home-Building" tells you all about walls and a great deal more. It treats of home-building from the selection of a suitable site clear through to the finishing touches of construction. It is full of plans, photographs, estimates, comparative prices and building economies—just the sort of information every home-builder wants.

Send ten cents to cover cost of mailing and ask for booklet free.

North Western Expanded Metal Company  
 Old Colony Building Chicago, U. S. A.

## 5 Million People are Reading this Full Page Magazine Ad!

*How many of them will you make your customers?*

No matter where you are located, a great big crowd of your neighbors are being *convinced* by our general magazine advertising for



They are going to insist upon it as the wall base in the new houses they are going to build—and their belief in our product will make it easy for you to turn them into permanent customers by selling them an initial order of what they want.

If you are not handling our line, you are missing an opportunity to profit by this advertising of ours, for every order we sell must go through a dealer and goods that are half sold are quickest to turn over.

*Get in touch with us TODAY. Let us quote you prices and tell you more about our product and our plans.*

**Northwestern Expanded Metal Company**  
 929 Old Colony Building Chicago, U. S. A.

# BOOKS FOR THE TRADE

## Cement Users

- Portland Cement for Users  
 Henry Falja and D. B. Butler. Price \$1.20 C
- Cements, Mortars and Concrete  
 Myron C. Falk. Price \$2.50 C
- Reinforced Concrete  
 W. H. Gibson and W. L. Webb. Price \$1.00 C
- Hand Book of Cost, Data  
 Halbert P. Gillette. Price \$5.00. C
- Concrete Construction  
 H. P. Gillette and C. S. Hill. Price \$5.00 C
- Cement Workers' and Plasterers' Ready Reference  
 H. G. Richey. Price \$1.50. C
- Reinforced Concrete  
 A. W. Buel and C. S. Hill. Price \$5.00 C
- Concrete  
 Edward Godfrey. Price \$2.50. C
- Reinforced Concrete  
 C. F. Marsh and Wm. Dunn. Price \$7.00. C
- Practical Treatise on Foundations  
 W. Patton. Price \$5.00. C
- Concrete  
 Thomas Potter. Price \$3.00. C
- Cement and Concrete  
 Louis C. Sabin. Price \$5.00. C
- Concrete and Reinforced Concrete Construction  
 Homer A. Reid. Price \$5.00. C
- Handbook on Reinforced Concrete  
 F. D. Warren. Price \$2.50. C
- Popular Handbook for Cement and Concrete Users  
 Myron H. Lewis & A. H. Chandler. Price \$2.50. C
- A Manual of Cement Testing  
 Richards & North. Price \$1.50. V
- A Treatise on Cement Specifications  
 Jerome Cochran. Price \$1.00. V
- Manual of Reinforced Concrete and Concrete Block Construction  
 Chas. F. Marsh and Wm. Dunn. Price \$2.50. V

## Cement and Lime Manufacturers

- Bungalows, Camps and Mountain Houses  
 Price \$2.00. C
- Limes, Cements and Mortars, Concretes, Mastics, etc.  
 G. R. Burnell. Price \$0.60. C
- Instructions to Inspectors on Reinforced Concrete Construction  
 Geo. P. Carver. Price \$0.50. C
- Cements, Limes and Plasters  
 Edwin C. Eckel. Price \$6.00. C
- Practical Treatise on Limes, Hydraulic Cements and Mortars  
 Gen. Q. A. Gillmore. Price \$4.00. C
- Mortars, Plasters, Stuccos, Concretes, Portland Cements and Compositions;  
 F. Hodgson. Price \$1.50. C
- Concrete Factories  
 Robert W. Lesley. Price \$1.00. C
- Portland Cement; Composition  
 Richard K. Meade. Price \$4.50. C
- Manufacture of Concrete Blocks  
 Wm. M. Torrence and others. Price \$1.50. C
- Practical Cement Testing  
 W. Purves Taylor. Price \$3.00. C
- Foundation and Concrete Works  
 E. Dobson. Price \$0.60. C
- Reinforced Concrete. Mechanic and Elementary Design  
 John P. Brooks. Price \$2.00. C
- Concrete and Stucco Houses  
 O. C. Hering. Price \$2.00. C
- Concrete Costs  
 Taylor-Thompson. Price \$5.00. C

## Architects and Engineers

- Building Construction and Superintendence—  
 Masonry Work  
 F. E. Kidder. Price \$6.00. C
- Theory of Steel-Concrete Arches and Vaulted Structures. Wm. Cain. Price \$0.50. C
- Concrete Country Residences. Price \$1.00. C
- Graphical Handbook for Reinforced Concrete Design  
 John Hawkesworth, C. E. Price \$2.50. C
- Theory and Design of Reinforced Concrete Arches  
 Arvid Reuterdaahl. Price \$2.00. C
- Treatise on Concrete, Plain and Reinforced. F. W. Taylor and S. E. Thompson. Price \$5.00. C
- Concrete Steel. W. N. Twelvetoos. Price \$1.90. C
- General Specifications for Concrete Work as Applied to Building Construction  
 Wilbur J. Watson. Price \$0.50. C
- Rocks, Minerals and Stocks  
 F. H. Smith. Price \$1.50. C
- Strength of Materials  
 Edward R. Maurer. Price \$1.00. C
- Highway Construction. Austin T. Byrne and Alfred E. Phillips. Price \$1.00. C
- Refrigeration. Chas. Dickerman and Francis H. Boyer. Price \$1.00. C
- Plumbing. Wm. Beall, Gray and Chas. B. Ball. Price \$1.50. C
- Estimating. Edward Nichols. Price \$1.00. C
- Building Superintendence  
 Edward Nichols. Price \$1.50. C
- Hollow Tile House. Squires. Price \$2.50. C
- Rock Excavating and Blasting  
 J. J. Cosgrove. Price \$2.50. J J C
- Estimating and Contracting  
 W. A. Radford. Price \$2.00.
- Brick Houses  
 W. A. Radford. Price \$1.00.
- Cement Houses  
 W. A. Radford. Price \$1.00.
- Cement and How to Use It  
 W. A. Radford. Price \$1.00.

**ROCK PRODUCTS AND BUILDING MATERIALS 537 S. DEARBORN STREET CHICAGO**

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

**National Plaster Board**

Is an insulator, keeping the house cooler in Summer.

Is an excellent sound-deadener.

Is carefully made, has a true, even surface and neatly trimmed edges. Makes perfect walls.

Eliminates cracks.

Forms a perfect bond with plaster, insuring strong, rigid walls.

**The National Plaster Board Co.**  
CLEVELAND, OHIO

**Wood Lath**

Does not insulate.

Has no sound-deadening value.

Is made from refuse lumber, the quality is becoming poorer every year. Scraps good for nothing else are made into lath.

By swelling, causes lath cracks.

Does not bond with plaster. Walls and ceilings are easily loosened and liable to fall off.

**"Clipper"****Blast Hole Drill**

Known as *"The Drill That Drills"*

Driven by **Steam, Compressed Air, Gasoline or Electric Power**; is made in many sizes and types and is thoroughly up-to-date.

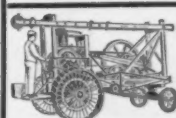
This simple, economical and long lasting machinery is used by the leading **Cement Manufacturers, Stone Producers and Railroad Contractors** of the present day. The **"CLIPPER"** is a Blast Hole Drill!

It **has always been** a Blast Hole Drill!

It was never **called** a Blast Hole Drill for a few weeks and then changed in hopes it **could be made** a Blast Hole Drill!

It is a Blast Hole Drill **for all conditions**—soft rock and hard rock—shallow holes and deep holes; in fact, with a **"CLIPPER"** Machine **you are safe!**

*There is not a cog wheel in the drilling part of the "CLIPPER" MACHINE.*



The "Clipper"  
Gasoline Traction

**THE LOOMIS MACHINE CO.**

TIFFIN, OHIO

CROWING FOR



**PLYMOUTH PLASTER  
WOOD FIBER PLASTER  
PLYMOUTH FIREPROOF  
PARTITION BLOCKS  
SACKETT PLASTIC BOARD  
STEEL STUDDING**

THE QUALITY BRANDS

WRITE US FOR PRICES AND  
ADVERTISING MATTER

**Plymouth Gypsum Co.**

Fort Dodge, Iowa

# ACME

E S T A B L I S H E D 1 8 8 9

CONFIDENCE IS A POPULAR TRUST.

IT IS TRUSTEE FOR PROFIT AND PROSPERITY.

COUNTERFEIT MONEY IS WITHOUT CONFIDENCE.

THE SOVEREIGN STAMP ON THE GOLD DOLLAR IS ITS GUARANTEE OF PURITY.

THE **ACME** BRAND ON THE PACKAGE IS ITS GUARANTEE OF QUALITY.

THE **ACME** LINE INSPIRES CONFIDENCE IN THE ESTABLISHMENT.

NOT THE PRICE YOU PAY—THE PRICE PAID YOU, PAYS.

QUALITY ENDURES

**Acme Cement Plaster Co.**

St. Louis, Missouri

ACME MILLS:

Acme, Texas  
Acme, New Mexico  
Acme, Oklahoma  
Laramie, Wyo.

GYPSUM MILLS:

Grand Rapids, Mich.  
Los Angeles, Cal.  
Gypsum, Oregon

GYPSUM MINES:

Ft. Dodge, Iowa  
Cement, Okla.  
Winslow, Ariz.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS





## For Good Country Homes

For houses on farm or suburban lot whose owners take pride in their appearance.

For houses where long-run economy is considered, the practical handsome roofing is fire-resisting Rex-tile Shingles.

Beautiful in soft dull red or blue black slate color, Rex-tile Shingles harmonize with any style of architecture and any building material. The colors are permanent—a part of the shingle itself—no painting ever necessary—nothing to crumble, blow off or wash off. Easily laid as ordinary shingles.

# Rex-tile

TRADE MARK

"The Scientific Shingle"

Rex-tile Shingles are 8" x 17½" with turn-under fold for nailing at bottom. No warping, cracking, curling or flopping is possible. This nailing fold, covering the nails, is **patented and exclusive**.

Rex-tile Shingles are coated on both sides—laid triple-thick—giving three tough sheets, each absolutely waterproof—over every part of the roof.

Write today for those samples and see for yourself. Let us give you full and complete information.

**FLINTKOTE MANUFACTURING CO., 89 PEARL ST., BOSTON, MASS.**  
Manufacturers of the famous Rex Flintkote Roofing for factories, warehouses, farm buildings, etc.

## Customers of Yours Are Reading The Above Ad.

—one of the attractive series now appearing in our big campaign of national advertising.

You know the advantage of handling a well-advertised product. In a word, you can sell more goods with less effort at a better profit. But there are other particular advantages in handling

# Rex-tile

TRADE MARK

"The Scientific Shingle"

Now is just the right moment to cash in on the wave of public sentiment against the deadly old wooden shingle—which has got to go—also unsatisfactory substitutes.

Rex-tile is "The Scientific Shingle" for dealers who want to build up business on a lasting foundation. You can easily prove these claims:—

**First**—the color is an actual part of the shingle itself. Nothing to wash off, crumble or blow off. No danger of becoming streaked or spotty. No painting necessary. The colors are soft dull red and blue black slate of great beauty.

**Second**—the turn under fold at bottom for nailing. This gives a double rounded butt-end—covering all nails against weather, and shingles are securely fastened at the bottom. Water cannot "back-up" or leak through. No danger of flapping, cannot warp, crack, buckle or curl up. **Absolutely wind proof.** This feature is patented and exclusive.

These are some of the reasons why a dealer should handle Rex-tile Shingles. Be sure to write today for special dealer's proposition and samples of Rex-tile Shingles. They'll tell you more than words can.

## Flintkote Manufacturing Co.

91 Pearl St., BOSTON, MASS. 658 Peoples Gas Bldg., CHICAGO  
Manufacturers of Famous Rex Flintkote Roofing for factories, warehouses, farm buildings, etc.



The Material that  does the Work



## Hydrolithic Cement Coating

Covered nearly 20,000 feet of the floor space illustrated above, and waterproofed and wearproofed the surface completely. Hydrolithic Cement Coating insures a smooth and absolutely durable surface; can be used in either concrete or mortar.

This is the best proposition for contractor, block-maker or dealer; because it is cement, not dope; because it is correct, scientifically sound; practical and always true and reliable; because prices are right for all. Live Dealers everywhere want either *Hydrolithic Cement* or *Hydro-Concentrates*.

Write today for further information

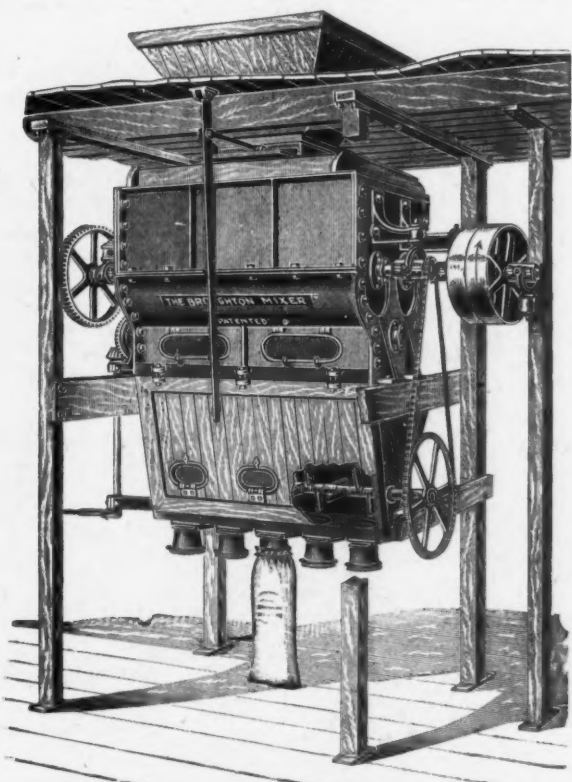
**Winslow's Hydrolithic System, Inc.**  
122 South Michigan Avenue CHICAGO

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS









The most thorough and efficient  
Mixers of Plaster, Cement and  
Dry Materials. Send for Circular.

**W. D. DUNNING, Water St., Syracuse, N. Y.**

## STOP! LOOK! LISTEN!

JUST THE MIXER YOU'VE BEEN WISHING FOR  
**The BIG-AN-LITTLE**



1914 MODEL

Just a Little Bit Better Than The One You Thought Was Best

The small mixer has proved its worth. Contractors see that it pays better to have one or more small portable Mixers, than to mix by hand or to have a great big clumsy Mixer. The question has been to get a Dependable Small Mixer at a Low Price.

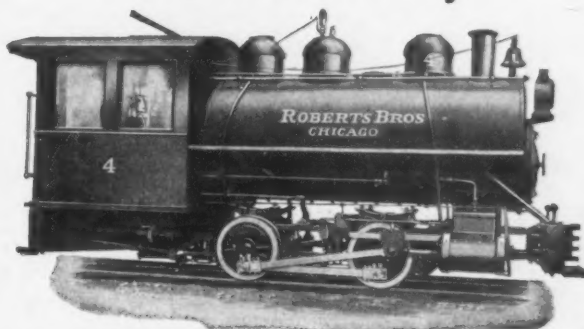
The Big-an-Little is the biggest and best small Mixer on Earth and our Low Prices amaze the Mixer world.

Your neighbor has one. They are used everywhere. Ask him. Write us NOW for full particulars.

**JAEGER MACHINE CO., 219 W. RICH STREET  
COLUMBUS, OHIO**

A-1 Catalog

## Do You Have Cars to Haul? The Davenport Locomotive Will Save Money



Special Designs for Special Purposes  
Any Size, Any Gauge, Any Weight  
Write for Prices and Particulars

## DAVENPORT LOCOMOTIVE WORKS

DAVENPORT, IOWA

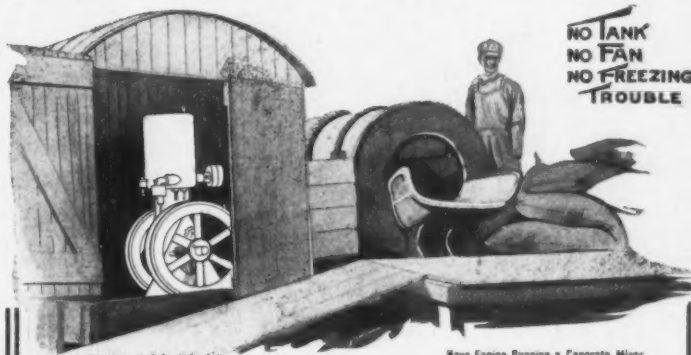
BRANCH OFFICES:

Chicago, 12 and 14 So. Canal St.  
Seattle, 617 Western Ave.  
St. Louis, 654 Peirce Bldg.

New York, 30 Church St.  
St. Paul, 1308 Pioneer-Press Bldg.  
Cincinnati, O., 703 1st Nat. Bank Bldg.

Canadian Representatives:

F. H. Hopkins & Co., Montreal, Que.,  
Dominion Equipment & Supply Co., Winnipeg, Man., Edmonton, Alta.



Novo Engine Running a Concrete Mixer

**NOVO**  
Eng. U.S. Pat. C.R.  
**ENGINES  
AND OUTFITS**

## It Takes a Real Engine to Run a Mixer

steadily, day in, day out; to furnish the uninterrupted power a contractor must have to make a job profitable. The Novo engine has proved that it is truly a contractor's power plant, and its lack of lateral vibration makes it particularly adaptable to running cement machinery.

Novo Engines are vertical, four-cycle, self-contained and the lightest engines for power developed. Made in 10 sizes, 1 to 15 h. p.

Send for "Reliable Power"—The Novo Book

and get the details you'll want about this engine and the big line of Novo Hoists and Pumping Outfits.

**NOVO ENGINE CO.**  
Clarence E. Bement, Sec'y and Mgr.

354 Willow Street

LANSING, MICH.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS





No. 258  
Heavy Duty Quarry Car.



No. 217-H  
Side Dump Car, Heavy Construction  
for Steam Shovel Use.

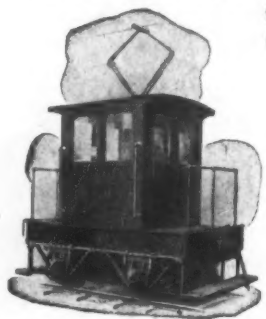
## Cars and Electric Locomotives

Especially adapted for use in quarries  
and cement works.

We aim to reduce your handling costs.  
Let us build you a car to suit your  
requirements. Complete industrial rail-  
way equipment.

## THE ATLAS CAR & MFG. CO.

909 Marquette St. Dept. 6  
CLEVELAND, OHIO



No. 6500  
Electric Locomotive.



No. 805  
Dumping Stone Carrier.



Attaching



Tied

## The Curry Bag Tyer and Wire Ties

Advantages over Tying or Sewing with Twine

Absolute Security  
No Sore Hands  
Ends Complaints

Mechanical Tightness  
No Skilled Men  
Easily Opened

Satisfies Your Trade. No Cut Bags. More Rapid  
than Twine Tying and Three Times as Fast as Sewing

We have already tied over 500,000,000 bags in the cement, plaster, lime  
and other bagging trades. Tying tools sent for 30 days' trial.

Catalogue E and Prices

**J. P. CURRY MFG. CO., Inc.**  
110 East 23rd Street NEW YORK, N. Y.

In making Atlas Portland Cement it has  
always been our aim to be first among superiors.  
The strength of Atlas lies in the fact that it is first  
among *many good* Portland Cements. *That*  
we *are* proud of.



Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS